2. AMENDMENT/MODIFICAITON NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHA	ASE REQ. NO.	5. PROJECT N	NO. (If applicble)
6. ISSUED BY CODE		7. ADMINISTERED BY (If	other than Item 6)	CODE	
				1	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, co	unty, State and ZIP Code)		(X) 9A. AMENDME	NT OF SOLICIAT	TON NO.
			(24)		
			9B. DATED (SEI	E ITEM 11)	
			104 MODIFICA	TION OF CONT	DA OT/ODDED NO
			TOA. MODIFICA	ATION OF CONTI	RACT/ORDER NO.
			10B. DATED (S	EE ITEM 11)	
				•	
CODE	CILITY CODE				
11. THIS ITEN	M ONLY APPLIES TO	AMENDMENTS OF	SOLICITATIONS		
The above numbered solicitation is amended as set fortl	o in Itam 14. The hour and	data appoified for receipt of (Offere is a	stended.	is not extended.
Offers must acknowledge receipt of this amendment prior to					is not extended.
(a)By completing items 8 and 15, and returning	•	b) By acknowledging receipt	•	•	offer submitted;
or (c) By separate letter or telegram which includes a referen					
PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR your desire to change an offer already submitted, such change and offer already submitted and change are considered.	ge may be made by telegram				
amendment, and is received prior to the opening hour and da	ate specified.				
12. ACCOUNTING AND APPROPIRATION DATA (If required)				
		DDIFICATION OF COL		RS.	
		DER NO. AS DESCRIE		DE IN THE CONT	TRACT OPNED
CHECK ONE A. THIS CHANGE ORDER IS ISSUED PURS NO. IN ITEM 10A.	OANT TO: (Specify authority	y) THE CHANGES SET FORT	H IN ITEM 14 AND MA	DE IN THE CONT	TRACT ORDER
B. THE ABOVE NUMBERED CONTRACT/0	ORDER IS MODIFIED TO REF	LECT THE ADMINISTRATIVE	CHANGES (such as cl	nanges in paying	office,
appropriation date, etc.) SET FORTH IN	ITEM 14, PURSUANT TO T	THE AUTHORITY OF FAR 43.	103(b).	0 . , 0	
C. THIS SUPPLEMENTAL AGREEMENT IS	ENTERED INTO PURSUANT	TO AUTHORITY OF:			
D OTHER (Court of the continue	d - 0-20)				
D. OTHER (Specify type of modification an	a authority)				
E. IMPORTANT: Contractor is not,	is required to sign th	nis document and retu	ırn ——— co	opies to the	issuing office.
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organ	ized by UCF section heading	gs, including solicitation/contr	act subject matter whe	ere feasible.)	
Except as provided herein, all terms and conditions of the do	cument referenced in Item 9	A or 10A, as heretofore char	nged, remains unchang	ed and in full for	ce and effect.
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF	CONTRACTING OFFIC	ER (Type or prin	t)
15D CONTRACTOR/OFFEDOR	15C. DATE SIGNED	16D LINITED STATES OF A	MEDICA		16C. DATE SIGNED
15B. CONTRACTOR/OFFEROR	TOO. DATE SIGNED	16B. UNITED STATES OF A	AIVIENICA		TOC. DATE SIGNED
(Signature of person authorized to sign)	I		e of Contracting Officer		<u>-</u>

Solicitation No. DACW63-00-B-0004, Repair Butterfly Valves at the Portal Structure, Waco Lake, Waco, Texas

Block 14. Continued.

CHANGES TO THE STANDARD FORM SF 1442

1. <u>Standard Form 1442</u> – Change the Bid Opening Date to "29 February 2000". Bid Opening time is 2 p.m. local time.

CHANGES TO THE BIDDING SCHEDULE

2. <u>Bidding Schedule and Bidding Schedule Notes</u>, <u>Section 00010</u> – Section 00010, is hereby replaced with the new Section 00010, bearing the title "ACCOMPANYING AMENDMENT NO. 0002 TO SOL. DACW63-00-B-0004".

CHANGES TO CLAUSES

- 3. Instructions, Conditions, and Notices to Bidders, Section 00100 The attached 3 pages bearing the title "ACCOMPANYING AMENDMENT NO. 0002 TO SOL. DACW63-00-B-0004". are hereby added to Section 00100.
- 4. Representations & Certifications, Section 00600 - The attached 5 pages bearing the title "ACCOMPANYING AMENDMENT NO. 0002 TO SOL. DACW63-00-B-0004". are hereby added to Section 00600.
- <u>5. Contract Clauses, Section 00700</u> - The attached 28 pages bearing the title "ACCOMPANYING AMENDMENT NO. 0002 TO SOL. DACW63-00-B-0004". are hereby added to Section 00700.
- 6. Contract Clause 52.211-10, Commencement, Prosecution, and Completion of Work (Apr 1984), paragraph © is hereby changed from "60" calendar days to "120" calendar days.

CHANGES TO SPECIFICATIONS

- <u>7. Specifications Section 01000</u> Section 01000, is hereby replaced with the new Section 01000, bearing the title "ACCOMPANYING AMENDMENT NO. 0002 TO SOL. DACW63-00-B-0004".
- 8. <u>Specifications Section 09914</u> Section 09914, Painting with Vinyl Paint, is hereby replaced with the new Section 09914, Painting with Epoxy-Polyamide Paints, bearing the title "ACCOMPANYING AMENDMENT NO. 0002 TO SOL. DACW63-00-B-0004".
- 9. <u>Specifications Section 09913</u> Paint Specification, SSPC- 22 is hereby added to the specifications as Section 09913, bearing the title "ACCOMPANYING AMENDMENT NO. 0002 TO SOL. DACW63-00-B-0004".

END OF AMENDMENT

ACCOMPANYING AMENDMENT NO. 0002 TO SOL. DACW63-00-B-0004

REPAIR BUTTERFLY VALVES AT THE PORTAL STRUCTURE, WACO LAKE, WACO, TEXAS SOLICITATION DACW63-00-B-0004 BIDDING SCHEDULE (TO BE ATTACHED TO SF 1442)

SECTION 00010

Item No.	Description	Estimated Quantity	Unit	Unit Price	Amount
BASE ADDIT	~	PLANS AND	SPECIFICA	TIONS EXC	LUDING
0001	Furnish all labor, tools, equipment and materials needed to remove, repair and re-install six (6) 54" butterf valves, includes installing new rubber seals and painting. Also paint existing piping and fittings associated with the removal of the valves from the portal structure.	i.	LS	XXXX	\$
		Estimated Ouantities			
0002	Furnish and install new compression (dresser) coupling to replace damaged couplings.	0-2	EACH	\$ See Bidd Note No	\$ ding Schedule . 6
0003	Furnish and install rubber seals ONLY on existing compression (dresser) coupling and paint compression (dresser couplings.	•	EACH	\$ See Bidd Note No	\$ ling Schedule . 6
		ТОТ	CAL BASE B	SID \$	
0004	Additive No. 1: All work required by the plans and specifications to furnish and install new valves in-lieu repairing and re-installing thold valves.		LS	XXXX See Bido Note No	\$ ding Schedule . 7
	TOTAI	L BASE BID	PLUS ADDI	TIVE \$	

ACCOMPANYING AMENDMENT NO. 0002 TO SOL. DACW63-00-B-0004 BIDDING SCHEDULE (cont.)

NOTES:

- 1. ARITHMETIC DISCREPANCIES (EFARS 14.407-2)
- (a) For the purpose of initial evaluations of bids, the following will be utilized in the resolving arithmetic discrepancies found on the face of bidding schedule as submitted by the bidder:
 - (1) Obviously misplaced decimal points will be corrected;
 - (2) Discrepancy between unit price and extended price, the unit price will govern;
 - (3) Apparent errors in extension of unit prices will be corrected;
 - (4) Apparent errors in addition of lump sum and extended prices will be corrected.
- (b) For the purpose of bid evaluation, the government will proceed on the assumption that the bidder intends his bid to be evaluated on basis of the unit prices, the totals arrived at by resolution of arithmetic discrepancies as provided above and the bid will be so reflected on the abstract of bids.
- (c) These corrections procedures shall not be used to resolve any ambiguity concerning which bid is low.

(End of Statement)

- 2. Abbreviations. The unit of measure "EA" represents Each, and "LS" represents "Lump Sum".
- 3 Offerors must bid on all items on the schedule. Omission of any item may result in rejection of the bid.
- 4. Please limit the unit price to two decimal places. When multiplying the estimated quantity by the unit price do not round the extended amount up or down.
- 5. Reference clause entitled "Required Central Contractor Registration" in section 00100; Contractors must be registered in CCR in order to be eligible for contract award.
- 6. For bidding purposes, bidders shall bid a quantity of "2" each for line items 0002 and 0003 on the bidding schedule, section 00010. Line Items 0002 and 0003 are Estimated Quantities and the Government will require either a quantity of "0" or "2" for each of these line items based on the extent of the necessary repairs.
- 7. Line Item 0004, is an additive to replace the valves with six (6) new valves in-lieu of repairing the old valves. The bid amount for this line item shall be only the difference in price to replace the valves in-lieu of repairing them. The price to remove and re-install six (6) valves and painting the piping and fittings shall be bid in Line Item 0001.

End of Section 00010

ACCOMPANYING AMENDMENT 0002 TO SOLICITATION NO. DACW63-00-B-0004

<u>Am 2</u>

33. 52.214-3 AMENDMENTS TO INVITATIONS FOR BIDS (DEC 1989)

- (a) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.
- (b) Bidders shall acknowledge receipt of any amendment to this solicitation (1) by signing and returning the amendment, (2) by identifying the amendment number and date in the space provided for this purpose on the form for submitting a bid, (3) by letter or telegram, or (4) by facsimile, if facsimile bids are authorized in the solicitation. The Government must receive the acknowledgment by the time and at the place specified for receipt of bids.

(End of provision)

34. 52.214-12 PREPARATION OF BIDS (APR 1984)

- (a) Bidders are expected to examine the drawings, specifications, Schedule, and all instructions. Failure to do so will be at the bidder's risk.
- (b) Each bidder shall furnish the information required by the solicitation. The bidder shall sign the bid and print or type its name on the Schedule and each continuation sheet on which it makes an entry. Erasures or other changes must be initialed by the person signing the bid. Bids signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the issuing office.
- (c) For each item offered, bidders shall (1) show the unit price, including, unless otherwise specified, packaging, packing, and preservation and (2) enter the extended price for the quantity of each item offered in the "Amount" column of the Schedule. In case of discrepancy between a unit price and an extended price, the unit price will be presumed to be correct, subject, however, to correction to the same extent and in the same manner as any other mistake.
- (d) Bids for supplies or services other than those specified will not be considered unless authorized by the solicitation.
- (e) Bidders must state a definite time for delivery of supplies or for performance of services, unless otherwise specified in the solicitation.
- (f) Time, if stated as a number of days, will include Saturdays, Sundays, and holidays.

(End of provision)

35. 52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of either a Construction or Supply type contract resulting from this solicitation. (End of clause)

36. 252.204-7004 REQUIRED CENTRAL CONTRACTOR REGISTRATION.(MAR 1998)

(a) Definitions.

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED DACW63-00-B-0004-0002	PAGE 2 of 3
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ACCOMPANYING AMENDMENT 0002 TO SOLICITATION NO. DACW63-00-B-0004

As used in this clause--

- (1) Central Contractor Registration (CCR database means the primary DoD repository for contractor information required for the conduct of business with DoD.
- (2) Data Universal Numbering System (DUNS) number means the 9-digit number assigned by Dun and Bradstreet Information Services to identify unique business entities.
- (3) Data Universal Numbering System +4 (DUNS+4) number means the DUNS number assigned by Dun and Bradstreet plus a 4-digit suffix that may be assigned by a parent (controlling) business concern. This 4-digit suffix may be assigned at the discretion of the parent business concern for such purposes as identifying subunits or affiliates of the parent business concern.
- (4) Registered in the CCR database means that all mandatory information, including the DUNS number or the DUNS+4 number, if applicable, and the corresponding Commercial and Government Entity (CAGE) code, is in the CCR database; the DUNS number and the CAGE code have been validated; and all edits have been successfully completed.
- (b)(1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee must be registered in the CCR database prior to award, during performance, and through final payment of any contract resulting from this solicitation, except for awards to foreign vendors for work to be performed outside the United States.
- (2) The offeror shall provide its DUNS or, if applicable, its DUNS+4 number with its offer, which will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.
- (3) Lack of registration in the CCR database will make an offeror ineligible for award.
- (4) DoD has established a goal of registering an applicant in the CCR database within 48 hours after receipt of a complete and accurate application via the Internet. However, registration of an applicant submitting an application through a method other than the Internet may take up to 30 days. Therefore, offerors that are not registered should consider applying for registration immediately upon receipt of this solicitation.
- (c) The Contractor is responsible for the accuracy and completeness of the data within the CCR, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to confirm on an annual basis that its information in the CCR database is accurate and complete.
- (d) Offerors and contractors may obtain information on registration and annual confirmation requirements by calling 1-888-227-2423, or via the Internet at http://ccr.edi.disa.mil.

37. 52.214-5000 APPARENT CLERICAL MISTAKES (MAR 1995)--EFARS

- (a) For the purpose of initial evaluations of bids, the following will be utilized in the resolving arithmetic discrepancies found on the face of bidding schedule as submitted by the bidder:
 - (1) Obviously misplaced decimal points will be corrected;
- (2) Discrepancy between unit price and extended price, the unit price will govern;
- (3) Apparent errors in extension of unit prices will be corrected;
- (4) Apparent errors in addition of lump-sum and extended prices will be corrected.

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED DACW63-00-B-0004-0002	PAGE 3 of 3
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ACCOMPANYING AMENDMENT 0002 TO SOLICITATION NO. DACW63-00-B-0004

(b) For the purpose of bid evaluation, the government will proceed on the assumption that the bidder intends his bid to be evaluated on basis of the unit prices, the totals arrived at by resolution of arithmetic discrepancies as provided above and the bid will be so reflected on the abstract of bids.

(c) These correction procedures shall not be used to resolve any ambiguity concerning which bid is low.

(End of statement)

End of Section 00100

ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACW63-00-B-0004

Am2

SECTION 00600 Representations & Certifications

52.214-14 PLACE OF PERFORMANCE--SEALED BIDDING (APR 1985)

- (a) The bidder, in the performance of any contract resulting from this solicitation, [] intends, [] does not intend [check applicable box] to use one or more plants or facilities located at a different address from the address of the bidder as indicated in this bid.
- (b) If the bidder checks "intends" in paragraph (a) above, it shall insert in the spaces provided below the required information:

Place of Performance	Name and Address of Owner	
(Street, Address, City,	and Operator of the Plant or	
County, State, Zip Cod	le) Facility if Other than Bidder	
	•	

(End of provision)

52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (MAY 1999) ALTERNATE II (JAN 1999)

- (a)(1) The standard industrial classification (SIC) code for this acquisition is 1623.
- (2) The small business size standard is 17 million.
- (3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.
- (b) Representations. (1) The offeror represents as part of its offer that it * is, * is not a small business concern.
- (2) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents, for general statistical purposes, that it * is, * is not a small disadvantaged business concern as defined in 13 CFR 124-1002.
- (3) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it * is, * is not a women-owned small business concern.
- (5) [Complete only if offeror represented itself as a small business concern in paragraph (b)(1) of this provision.] The offeror represents, as part of its offer, that--
- (i) It () is, () is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal place of ownership, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and

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- (c) Definitions. "Joint venture," for purposes of a small disadvantaged business (SDB) set-aside or price evaluation preference (as prescribed at 13 CFR 124.321), is a concern that is owned and controlled by one or more socially and economically disadvantaged individuals entering into a joint venture agreement with one or more business concerns and is considered to be affiliated for size purposes with such other concern(s). The combined annual receipts or employees of the concerns entering into the joint venture must meet the applicable size standard corresponding to the SIC code designated for the contract. The majority of the venture's earnings must accrue directly to the socially and economically disadvantaged individuals in the SDB concern(s) in the joint venture. The percentage of the ownership involvement in a joint venture by disadvantaged individuals must be at least 51 percent.
- "Small business concern," as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (a) of this provision.
- "Small disadvantaged business concern," as used in this provision, means a small business concern that (1) is at least 51 percent unconditionally owned by one or more individuals who are both socially and economically disadvantaged, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more socially and economically disadvantaged individuals, and (2) has its management and daily business controlled by one or more such individuals. This term also means a small business concern that is at least 51 percent unconditionally owned by an economically disadvantaged Indian tribe or Native Hawaiian Organization, or a publicly owned business having at least 51 percent of its stock unconditionally owned by one or more of these entities, which has its management and daily business controlled by members of an economically disadvantaged Indian tribe or Native Hawaiian Organization, and which meets the requirements of 13 CFR Part 124.
- "Women-owned small business concern," as used in this provision, means a small business concern-
- (1) Which is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and
- (2) Whose management and daily business operations are controlled by one or more women.
- (d) Notice. (1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.
- (2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall--
- (i) Be punished by imposition of fine, imprisonment, or both;
- (ii) Be subject to administrative remedies, including suspension and debarment; and
- (iii) Be ineligible for participation in programs conducted under the authority of the Act.

CONTINUATION SHEET REFERENCE NO. OF DOCUMENT BEING CONTINUED **PAGE** DACW63-00-B-0004-0002 3 OF 5 ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACW63-00-B-0004 (End of provision) 52.222-25 AFFIRMATIVE ACTION COMPLIANCE (FEB 1984) The offeror represents that (a) [] it has developed and has on file, [] has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2), or (b) [] has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor. (End of provision) 252.225-7000 BUY AMERICAN ACT--BALANCE OF PAYMENTS PROGRAM CERTIFICATE (SEP 1999) (a) Definitions. Domestic end product, qualifying country, qualifying country end product, and qualifying country end product have the meanings given in the Buy American Act and Balance of Payments Program clause of this solicitation. (b) Evaluation. Offers will be evaluated by giving preference to domestic end products and qualifying country end products over nonqualifying country end products. (c) Certifications. (1) The Offeror certifies that--(i) Each end product, except those listed in paragraphs (c) (2) or (3) of this provision, is a domestic end product; and (ii) Components of unknown origin are considered to have been mined, produced, or manufactured outside the United States or a qualifying country. (2) The Offeror certifies that the following end products are qualifying country end products: **Qualifying Country End Products** Country of Origin Line Item Number (List only qualifying country end products.) (3) The Offeror certifies that the following end products are nonqualifying country end products: Nonqualifying Country End Products Line Item Number Country of Origin (If known) (End of provision)

ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACW63-00-B-0004

252.225-7031 SECONDARY ARAB BOYCOTT OF ISRAEL (JUN 1992)

- (a) Definitions. As used in this clause--
- (1) "Foreign person" means any person other than a United States person as defined in Section 16(2) of the Export Administration Act of 1979 (50 U.S.C. App. Sec 2415).
- (2) "United States person" is defined in Section 16(2) of the Export Administration Act of 1979 and means any United States resident or national (other than an individual resident outside the United States and employed by other than a United States person), any domestic concern (including any permanent domestic establishment of any foreign concern), and any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern which is controlled in fact by such domestic concerns, as determined under regulations of the President.
- (b) Certification. By submitting this offer, the Offeror, if a foreign person, company or entity, certifies that it-
- (1) Does not comply with the Secondary Arab Boycott of Israel; and
- (2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. Sec 2407(a) prohibits a United States person from taking.

(End of clause)

252.225-7035 BUY AMERICAN ACT--NORTH AMERICAN FREE TRADE AGREEMENT IMPLEMENTATION ACT--BALANCE OF PAYMENTS PROGRAM CERTIFICATE (MAR 1998)

- (a) Definitions. ``Domestic end product,'' ``foreign end product,'' ``NAFTA country end product,'' and ``qualifying country end product'' have the meanings given in the Buy American Act--North American Free Trade Agreement Implementation Act--Balance of Payments Program clause of this solicitation.
- (b) Evaluation. Offers will be evaluated in accordance with the policies and procedures of Part 225 of the Defense Federal Acquisition Regulation Supplement. For line items subject to the North American Free Trade Agreement Implementation Act, offers of qualifying country end products or NAFTA country end products will be evaluated without regard to the restrictions of the Buy American Act or the Balance of Payments Program.
- (c) Certifications. (1) The offeror certifies that--
- (i) Each end product, except the end products listed in paragraph (c)(2) of this provision, is a domestic end product; and
- (ii) Components of unknown origin are considered to have been mined, produced, or manufactured outside the United States or a qualifying country.
- (2) The Offeror must identify all end products that are not domestic end products.
- (i) The Offeror certifies that the following supplies are qualifying country (except Canada) end products:

insert line item	number	insert country	of origin

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ACCOMPANYING AMENDMENT NO. 00	002 TO SOLICITATION NO. D.	ACW63-00-B-0004			
(ii) The Offeror certifies that the fol	lowing supplies qualify as	S NAFTA country end pr	oducts:		
insert line item number	insert country of origin				
(iii) The following supplies are other	er foreign end products:				
insert line item number	insert country of origin				

ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACW63-00-B-0004

Am2

SECTION 00700 Contract Clauses

- 252.236-7007 ADDITIVE OR DEDUCTIVE ITEMS. (DEC 1991)
- (a) The low offeror and the items to be awarded shall be determined as follows --
- (1) Prior to the opening of bids, the Government will determine the amount of funds available for the project.
- (2) The low offeror shall be the Offeror that --
- (i) Is otherwise eligible for award; and
- (ii) Offers the lowest aggregate amount for the first or base bid item, plus or minus (in the order stated in the list of priorities in the bid schedule) those additive or deductive items that provide the most features within the funds determined available.
- (3) The Contracting Officer shall evaluate all bids on the basis of the same additive or deductive items.
- (i) If adding another item from the bid schedule list of priorities would make the award exceed the available funds for all offerors, the Contracting Officer will skip that item and go to the next item from the bid schedule of priorities; and
- (ii) Add that next item if an award may be made that includes that item and is within the available funds.
- (b) The Contracting Officer will use the list of priorities in the bid schedule only to determine the low offeror. After determining the low offeror, an award may be made on any combination of items if --
- (1) It is in the best interest of the Government;
- (2) Funds are available at the time of award; and
- (3) The low offeror's price for the combination to be awarded is less than the price offered by any other responsive, responsible offeror.
- (c) "Example." The amount available is \$100,000. Offeror A's base bid and four additives (in the order stated in the list of priorities in the bid Schedule) are \$85,000, \$10,000, \$8,000, \$6,000, and \$4,000. Offeror B's base bid and four additives are \$80,000, \$16,000, \$9,000, \$7,000, and \$4,000. Offeror A is the low offeror. The aggregate amount of offeror A's bid for purposes of award would be \$99,000, which includes a base bid plus the first and fourth additives. The second and third additives were skipped because each of them would cause the aggregate bid to exceed \$100,000.

52.246-2 INSPECTION OF SUPPLIES--FIXED-PRICE (AUG 1996)

- (a) Definition. "Supplies," as used in this clause, includes but is not limited to raw materials, components, intermediate assemblies, end products, and lots of supplies.
- (b) The Contractor shall provide and maintain an inspection system acceptable to the Government covering supplies under this contract and shall tender to the Government for acceptance only supplies that have been inspected in accordance with the inspection system and have been found by the Contractor to be in conformity with contract requirements. As part of the system, the Contractor shall prepare records evidencing all inspections made under the

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ACCOMPANYING AMENDMENT NO. 0002 TO SOLICITATION NO. DACW63-00-B-0004

system and the outcome. These records shall be kept complete and made available to the Government during contract performance and for as long afterwards as the contract requires. The Government may perform reviews and evaluations as reasonably necessary to ascertain compliance with this paragraph. These reviews and evaluations shall be conducted in a manner that will not unduly delay the contract work. The right of review, whether exercised or not, does not relieve the Contractor of the obligations under the contract.

- (c) The Government has the right to inspect and test all supplies called for by the contract, to the extent practicable, at all places and times, including the period of manufacture, and in any event before acceptance. The Government shall perform inspections and tests in a manner that will not unduly delay the work. The Government assumes no contractual obligation to perform any inspection and test for the benefit of the Contractor unless specifically set forth elsewhere in this contract.
- (d) If the Government performs inspection or test on the premises of the Contractor or a subcontractor, the Contractor shall furnish, and shall require subcontractors to furnish, at no increase in contract price, all reasonable facilities and assistance for the safe and convenient performance of these duties. Except as otherwise provided in the contract, the Government shall bear the expense of Government inspections or tests made at other than the Contractor's or subcontractor's premises; provided, that in case of rejection, the Government shall not be liable for any reduction in the value of inspection or test samples.
- (e)(1) When supplies are not ready at the time specified by the Contractor for inspection or test, the Contracting Officer may charge to the Contractor the additional cost of inspection or test.
- (2) The Contracting Officer may also charge the Contractor for any additional cost of inspection or test when prior rejection makes re-inspection or retest necessary.
- (f) The Government has the right either to reject or to require correction of nonconforming supplies. Supplies are nonconforming when they are defective in material or workmanship or are otherwise not in conformity with contract requirements. The Government may reject nonconforming supplies with or without disposition instructions.
- (g) The Contractor shall remove supplies rejected or required to be corrected. However, the Contracting Officer may require or permit correction in place, promptly after notice, by and at the expense of the Contractor. The Contractor shall not tender for acceptance corrected or rejected supplies without disclosing the former rejection or requirement for correction, and, when required, shall disclose the corrective action taken.
- (h) If the Contractor fails to promptly remove, replace, or correct rejected supplies that are required to be removed or to be replaced or corrected, the Government may either (1) by contract or otherwise, remove, replace, or correct the supplies and charge the cost to the Contractor or (2) terminate the contract for default. Unless the Contractor corrects or replaces the supplies within the delivery schedule, the Contracting Officer may require their delivery and make an equitable price reduction. Failure to agree to a price reduction shall be a dispute.
- (i)(1) If this contract provides for the performance of Government quality assurance at source, and if requested by the Government, the Contractor shall furnish advance notification of the time (i) when Contractor inspection or tests will be performed in accordance with the terms and conditions of the contract and (ii) when the supplies will be ready for Government inspection.
- (2) The Government's request shall specify the period and method of the advance notification and the Government representative to whom it shall be furnished. Requests shall not require more than 2 workdays of advance notification if the Government representative is in residence in the Contractor's plant, nor more than 7 workdays in other instances.
- (j) The Government shall accept or reject supplies as promptly as practicable after delivery, unless otherwise provided in the contract. Government failure to inspect and accept or reject the supplies shall not relieve the Contractor from responsibility, nor impose liability on the Government, for nonconforming supplies.

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(k) Inspections and tests by the Government do not relieve the Contractor of responsibility for defects or other failures to meet contract requirements discovered before acceptance. Acceptance shall be conclusive, except for latent defects, fraud, gross mistakes amounting to fraud, or as otherwise provided in the contract.

(1) If acceptance is not conclusive for any of the reasons in paragraph (k) hereof, the Government, in addition to any other rights and remedies provided by law, or under other provisions of this contract, shall have the right to require the Contractor (1) at no increase in contract price, to correct or replace the defective or nonconforming supplies at the original point of delivery or at the Contractor's plant at the Contracting Officer's election, and in accordance with a reasonable delivery schedule as may be agreed upon between the Contractor and the Contracting Officer; provided, that the Contracting Officer may require a reduction in contract price if the Contractor fails to meet such delivery schedule, or (2) within a reasonable time after receipt by the Contractor of notice of defects or nonconformance, to repay such portion of the contract as is equitable under the circumstances if the Contracting Officer elects not to require correction or replacement. When supplies are returned to the Contractor, the Contractor shall bear the transportation cost from the original point of delivery to the Contractor's plant and return to the original point when that point is not the Contractor's plant. If the Contractor fails to perform or act as required in (1) or (2) above and does not cure such failure within a period of 10 days (or such longer period as the Contracting Officer may authorize in writing) after receipt of notice from the Contracting Officer specifying such failure, the Government shall have the right by contract or otherwise to replace or correct such supplies and charge to the Contractor the cost occasioned the Government thereby.

52.246-16 RESPONSIBILITY FOR SUPPLIES (APR 1984)

- (a) Title to supplies furnished under this contract shall pass to the Government upon formal acceptance, regardless of when or where the Government takes physical possession, unless the contract specifically provides for earlier passage of title.
- (b) Unless the contract specifically provides otherwise, risk of loss of or damage to supplies shall remain with the Contractor until, and shall pass to the Government upon--
- (1) Delivery of the supplies to a carrier, if transportation is f.o.b. origin; or
- (2) Acceptance by the Government or delivery of the supplies to the Government at the destination specified in the contract, whichever is later, if transportation is f.o.b. destination.
- (c) Paragraph (b) of this section shall not apply to supplies that so fail to conform to contract requirements as to give a right of rejection. The risk of loss of or damage to such nonconforming supplies remains with the Contractor until cure or acceptance. After cure or acceptance, paragraph (b) of this section shall apply.
- (d) Under paragraph (b) of this section, the Contractor shall not be liable for loss of or damage to supplies caused by the negligence of officers, agents, or employees of the Government acting within the scope of their employment.

52.211-8 TIME OF DELIVERY (JUN 1997)

(a) The Government requires delivery to be made according to the following schedule:

REQUIRED DELIVERY SCHEDULE

120 days after receipt of the Notice to Proceed for all items in the bidding schedule.

The Government will evaluate equally, as regards time of delivery, offers that propose delivery of each quantity

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within the applicable delivery period specified above. Offers that propose delivery that will not clearly fall within the applicable required delivery period specified above, will be considered non-responsive and rejected. The Government reserves the right to award under either the required delivery schedule or the proposed delivery schedule, when an offeror offers an earlier delivery schedule than required above. If the offeror proposes no other delivery schedule, the required delivery schedule above will apply.

OFFEROR'S PROPOSED DELIVERY SCHEDULE
Within Days
After Date
Item No. Quantity of Contract

(b) Attention is directed to the Contract Award provision of the solicitation that provides that a written award or acceptance of offer mailed, or otherwise furnished to the successful offeror, results in a binding contract. The Government will mail or otherwise furnish to the offeror an award or notice of award not later than the day award is dated. Therefore, the offeror should compute the time available for performance beginning with the actual date of award, rather than the date the written notice of award is received from the Contracting Officer through the ordinary mails. However, the Government will evaluate an offer that proposes delivery based on the Contractor's date of receipt of the contract or notice of award by adding (1) five calendar days for delivery of the award through the ordinary mails, or (2) one working day if the solicitation states that the contract or notice of award will be transmitted electronically. (The term "working day" excludes weekends and U.S. Federal holidays.) If, as so computed, the offered delivery date is later than the required delivery date, the offer will be considered nonresponsive and rejected.

(End of clause)

52.242-17 GOVERNMENT DELAY OF WORK (APR 1984)

(a) If the performance of all or any part of the work of this contract is delayed or interrupted (1) by an act of the Contracting Officer in the administration of this contract that is not expressly or impliedly authorized by this contract, or (2) by a failure of the Contracting Officer to act within the time specified in this contract, or within a reasonable time if not specified, an adjustment (excluding profit) shall be made for any increase in the cost of performance of this contract caused by the delay or interruption and the contract shall be modified in writing accordingly. Adjustment shall also be made in the delivery or performance dates and any other contractual term or condition affected by the delay or interruption. However, no adjustment shall be made under this clause for any delay or interruption to the extent that performance would have been delayed or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an adjustment is provided or excluded under any other term or condition of this contract.

(b) A claim under this clause shall not be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved, and (2) unless the claim, in

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an amount stated, is asserted in writing as soon as practicable after the termination of the delay or interruption, but not later than the day of final payment under the contract.

52.247-34 F.O.B. DESTINATION (NOV 1991)

- (a) The term "f.o.b. destination," as used in this clause, means--
- (1) Free of expense to the Government, on board the carrier's conveyance, at a specified delivery point where the consignee's facility (plant, warehouse, store, lot, or other location to which shipment can be made) is located; and
- (2) Supplies shall be delivered to the destination consignee's wharf (if destination is a port city and supplies are for export), warehouse unloading platform, or receiving dock, at the expense of the Contractor. The Government shall not be liable for any delivery, storage, demurrage, accessorial, or other charges involved before the actual delivery (or "constructive placement" as defined in carrier tariffs) of the supplies to the destination, unless such charges are caused by an act or order of the Government acting in its contractual capacity. If rail carrier is used, supplies shall be delivered to the specified unloading platform of the consignee. If motor carrier (including "piggyback") is used, supplies shall be delivered to truck tailgate at the unloading platform of the consignee, except when the supplies delivered meet the requirements of Item 568 of the National Motor Freight Classification for "heavy or bulky freight." When supplies meeting the requirements of the referenced Item 568 are delivered, unloading (including movement to the tailgate) shall be performed by the consignee, with assistance from the truck driver, if requested. If the contractor uses rail carrier or freight forwarded for less than carload shipments, the contractor shall ensure that the carrier will furnish tailgate delivery, when required, if transfer to truck is required to complete delivery to consignee.
- (b) The Contractor shall--
- (1)(i) Pack and mark the shipment to comply with contract specifications; or
- (ii) In the absence of specifications, prepare the shipment in conformance with carrier requirements;
- (2) Prepare and distribute commercial bills of lading;
- (3) Deliver the shipment in good order and condition to the point of delivery specified in the contract;
- (4) Be responsible for any loss of and/or damage to the goods occurring before receipt of the shipment by the consignee at the delivery point specified in the contract;
- (5) Furnish a delivery schedule and designate the mode of delivering carrier; and
- (6) Pay and bear all charges to the specified point of delivery.

52.202-1 DEFINITIONS. (OCT 1995)

(a) "Head of the agency" (also called "agency head") or "Secretary" means the Secretary (or Attorney General, Administrator, Governor, Chairperson, or other chief official, as appropriate) of the agency, including any deputy or assistant chief official of the agency, and the term "authorized representative" means any person, persons, or board (other than the Contracting Officer) authorized to act for the head of the agency or Secretary.

(b) Commercial component means any component that is a commercial item.

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- (c) Commercial item means--
- (1) Any item, other than real property, that is of a type customarily used for non-governmental purposes and that-
- (i) Has been sold, leased, or licensed to the general public; or
- (ii) Has been offered for sale, lease, or license to the general public;
- (2) Any item that evolved from an item described in paragraph (c)(1) of this clause through advances in technology or performance and that is not yet available in the commercial marketplace, but will be available in the commercial marketplace in time to satisfy the delivery requirements under a Government solicitation;
- (3) Any item that would satisfy a criterion expressed in paragraphs (c)(1) or (c)(2) of this clause, but for-
- (i) Modifications of a type customarily available in the commercial marketplace; or
- (ii) Minor modifications of a type not customarily available in the commercial marketplace made to meet Federal Government requirements. "Minor" modifications means modifications that do not significantly alter the non-governmental function or essential physical characteristics of an item or component, or change the purpose of a process. Factors to be considered in determining whether a modification is minor include the value and size of the modification and the comparative value and size of the final product. Dollar values and percentages may be used as guideposts, but are not conclusive evidence that a modification is minor;
- (4) Any combination of items meeting the requirements of paragraphs (c)(1), (2), (3), or (5) of this clause that are of a type customarily combined and sold in combination to the general public;
- (5) Installation services, maintenance services, repair services, training services, and other services if such services are procured for support of an item referred to in paragraphs (c)(1), (2), (3), or (4) of this clause, and if the source of such services—
- (i) Offers such services to the general public and the Federal Government contemporaneously and under similar terms and conditions; and
- (ii) Offers to use the same work force for providing the Federal Government with such services as the source uses for providing such services to the general public;
- (6) Services of a type offered and sold competitively in substantial quantities in the commercial marketplace based on established catalog or market prices for specific tasks performed under standard commercial terms and conditions. This does not include services that are sold based on hourly rates without an established catalog or market price for a specific service performed;
- (7) Any item, combination of items, or service referred to in subparagraphs (c)(1) through (c)(6), notwithstanding the fact that the item, combination of items, or service is transferred between or among separate divisions, subsidiaries, or affiliates of a Contractor; or
- (8) A non-developmental item, if the procuring agency determines the item was developed exclusively at private expense and sold in substantial quantities, on a competitive basis, to multiple State and local Governments.
- (d) Component means any item supplied to the Federal Government as part of an end item or of another component.
- (e) Non-developmental item means--

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- (1) Any previously developed item of supply used exclusively for governmental purposes by a Federal agency, a State or local government, or a foreign government with which the United States has a mutual defense cooperation agreement;
- (2) Any item described in paragraph (e)(1) of this definition that requires only minor modification or modifications of a type customarily available in the commercial marketplace in order to meet the requirements of the procuring department or agency; or
- (3) Any item of supply being produced that does not meet the requirements of paragraph (e)(1) or (e)(2) solely because the item is not yet in use.
- (f) "Contracting Officer" means a person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the Contracting Officer acting within the limits of their authority as delegated by the Contracting Officer.
- (g) Except as otherwise provided in this contract, the term "subcontracts" includes, but is not limited to, purchase orders and changes and modifications to purchase orders under this contract.

52.203-8 CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

- (a) If the Government receives information that a contractor or a person has engaged in conduct constituting a violation of subsection (a), (b), (c), or (d) of Section 27 of the Office of Federal Procurement Policy Act (41 U.S.C. 423) (the Act), as amended by section 4304 of the 1996 National Defense Authorization Act for Fiscal Year 1996 (Pub. L. 104-106), the Government may--
- (1) Cancel the solicitation, if the contract has not yet been awarded or issued; or
- (2) Rescind the contract with respect to which--
- (i) The Contractor or someone acting for the Contractor has been convicted for an offense where the conduct constitutes a violation of subsection 27 (a) or (b) of the Act for the purpose of either--
- (A) Exchanging the information covered by such subsections for anything of value; or
- (B) Obtaining or giving anyone a competitive advantage in the award of a Federal agency procurement contract; or
- (ii) The head of the contracting activity has determined, based upon a preponderance of the evidence, that the Contractor or someone acting for the Contractor has engaged in conduct constituting an offense punishable under subsections 27(e)(1) of the Act.
- (b) If the Government rescinds the contract under paragraph (a) of this clause, the Government is entitled to recover, in addition to any penalty prescribed by law, the amount expended under the contract.
- (c) The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law, regulation, or under this contract.

52.211-5 MATERIAL REQUIREMENTS (OCT 1997)

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(a) Definitions.

As used in this clause--

New means composed of previously unused components, whether manufactured from virgin material, recovered material in the form of raw material, or materials and by-products generated from, and reused within, an original manufacturing process; provided that the supplies meet contract requirements, including but not limited to, performance, reliability, and life expectancy.

Reconditioned means restored to the original normal operating condition by readjustments and material replacement.

Recovered material means waste materials and by-products that have been recovered or diverted from solid waste including post consumer material, but such term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process.

Remanufactured means factory rebuilt to original specifications.

Virgin material means previously unused raw material, including previously unused copper, aluminum, lead, zinc, iron, other metal or metal ore, or any undeveloped resource that is, or with new technology will become, a source of raw materials.

- (b) Unless this contract otherwise requires virgin material or supplies composed of or manufactured from virgin material, the Contractor shall provide supplies that are new, as defined in this clause.
- (c) A proposal to provide unused former Government surplus property shall include a complete description of the material, the quantity, the name of the Government agency from which acquired, and the date of acquisition.
- (d) A proposal to provide used, reconditioned, or remanufactured supplies shall include a detailed description of such supplies and shall be submitted to the Contracting Officer for approval.
- (e) Used, reconditioned, or remanufactured supplies, or unused former Government surplus property, shall not be used unless the Contractor has proposed the use of such supplies, and the Contracting Officer has authorized their use.

52.214-29 ORDER OF PRECEDENCE--SEALED BIDDING (JAN 1986)

Any inconsistency in this solicitation or contract shall be resolved by giving precedence in the following order: (a) the Schedule (excluding the specifications); (b) representations and other instructions; (c) contract clauses; (d) other documents, exhibits, and attachments; and (e) the specifications.

(End of clause)

52.215-14 INTEGRITY OF UNIT PRICES (OCT 1997)

(a) Any proposal submitted for the negotiation of prices for items of supplies shall distribute costs within contracts on a basis that ensures that unit prices are in proportion to the items' base cost (e.g., manufacturing or acquisition costs). Any method of distributing costs to line items that distorts unit prices shall not be used. For example, distributing costs equally among line items is not acceptable except when there is little or no variation in base cost. Nothing in this paragraph requires submission of cost or pricing data not otherwise required by law or regulation.

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(b) When requested by the Contracting Officer, the Offeror/Contractor shall also identify those supplies that it will not manufacture or to which it will not contribute significant value.

The Contractor shall insert the substance of this clause, less paragraph (b), in all subcontracts for other than: acquisitions at or below the simplified acquisition threshold in FAR Part 2; construction or architect-engineer services under FAR Part 36; utility services under FAR Part 41; services where supplies are not required; commercial items; and petroleum products.

52.219-6 NOTICE OF TOTAL SMALL BUSINESS SET-ASIDE (JUL 1996)

(a) Definition.

"Small business concern," as used in this clause, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the size standards in this solicitation.

- (b) General. (1) Offers are solicited only from small business concerns. Offers received from concerns that are not small business concerns shall be considered non-responsive and will be rejected.
- (2) Any award resulting from this solicitation will be made to a small business concern.
- (c) Agreement. A small business concern submitting an offer in its own name agrees to furnish, in performing the contract, only end items manufactured or produced by small business concerns in the United States. The term "United States" includes its territories and possessions, the Commonwealth of Puerto Rico, the Trust Territory of the Pacific Islands, and the District of Columbia. If this procurement is processed under simplified acquisition procedures and the total amount of this contract does not exceed \$25,000, a small business concern may furnish the product of any domestic firm. This paragraph does not apply in connection with construction or service contracts.

(End of clause)

52.219-14 LIMITATIONS ON SUBCONTRACTING (DEC 1996)

- (a) This clause does not apply to the unrestricted portion of a partial set-aside.
- (b) By submission of an offer and execution of a contract, the Offeror/Contractor agrees that in performance of the contract in the case of a contract for--
- (1) Services (except construction). At least 50 percent of the cost of contract performance incurred for personnel shall be expended for employees of the concern.
- (2) Supplies (other than procurement from a non-manufacturer of such supplies). The concern shall perform work for at least 50 percent of the cost of manufacturing the supplies, not including the cost of materials.
- (3) General construction. The concern will perform at least 15 percent of the cost of the contract, not including the cost of materials, with its own employees.
- (4) Construction by special trade contractors. The concern will perform at least 25 percent of the cost of the contract, not including the cost of materials, with its own employees.

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52.222-20 WALSH-HEALEY PUBLIC CONTRACTS ACT (DEC 1996)

If this contract is for the manufacture or furnishing of materials, supplies, articles or equipment in an amount that exceeds or may exceed \$10,000, and is subject to the Walsh-Healey Public Contracts Act, as amended (41 U.S.C. 35-45), the following terms and conditions apply:

- (a) All stipulations required by the Act and regulations issued by the Secretary of Labor (41 CFR Chapter 50) are incorporated by reference. These stipulations are subject to all applicable rulings and interpretations of the Secretary of Labor that are now, or may hereafter, be in effect.
- (b) All employees whose work relates to this contract shall be paid not less than the minimum wage prescribed by regulations issued by the Secretary of Labor (41 CFR 50-202.2). Learners, student learners, apprentices, and handicapped workers may be employed at less than the prescribed minimum wage (see 41 CFR 50-202.3) to the same extent that such employment is permitted under Section 14 of the Fair Labor Standards Act (41 U.S.C. 40).

52.222-21 PROHIBITION OF SEGREGATED FACILITIES (FEB 1999)

- (a) Segregated facilities, as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.
- (b) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.
- (c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Opportunity clause of this contract.

(End of clause)

52.223-7 NOTICE OF RADIOACTIVE MATERIALS (JAN 1997)

- (a) The Contractor shall notify the Contracting Officer or designee, in writing, 30 days prior to the delivery of, or prior to completion of any servicing required by this contract of, items containing either (1) radioactive material requiring specific licensing under the regulations issued pursuant to the Atomic Energy Act of 1954, as amended, as set forth in Title 10 of the Code of Federal Regulations, in effect on the date of this contract, or (2) other radioactive material not requiring specific licensing in which the specific activity is greater than 0.002 microcuries per gram or the activity per item equals or exceeds 0.01 microcuries. Such notice shall specify the part or parts of the items which contain radioactive materials, a description of the materials, the name and activity of the isotope, the manufacturer of the materials, and any other information known to the Contractor which will put users of the items on notice as to the hazards involved (OMB No. 9000-0107).
- * The Contracting Officer shall insert the number of days required in advance of delivery of the item or completion of the servicing to assure that required licenses are obtained and appropriate personnel are notified to institute any necessary safety and health precautions. See FAR 23.601(d).
- (b) If there has been no change affecting the quantity of activity, or the characteristics and composition of the

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radioactive material from deliveries under this contract or prior contracts, the Contractor may request that the Contracting Officer or designee waive the notice requirement in paragraph (a) of this clause. Any such request shall-

- (1) Be submitted in writing;
- (2) State that the quantity of activity, characteristics, and composition of the radioactive material have not changed; and
- (3) Cite the contract number on which the prior notification was submitted and the contracting office to which it was submitted.
- (c) All items, parts, or subassemblies which contain radioactive materials in which the specific activity is greater than 0.002 microcuries per gram or activity per item equals or exceeds 0.01 microcuries, and all containers in which such items, parts or subassemblies are delivered to the Government shall be clearly marked and labeled as required by the latest revision of MIL-STD 129 in effect on the date of the contract.
- (d) This clause, including this paragraph (d), shall be inserted in all subcontracts for radioactive materials meeting the criteria in paragraph (a) of this clause.

(End of clause)

<u>52.227-3 PATENT INDEMNITY (APR 1984)</u>

- (a) The Contractor shall indemnify the Government and its officers, agents, and employees against liability, including costs, for infringement of any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. 181) arising out of the manufacture or delivery of supplies, the performance of services, or the construction, alteration, modification, or repair of real property (hereinafter referred to as "construction work") under this contract, or out of the use or disposal by or for the account of the Government of such supplies or construction work.
- (b) This indemnity shall not apply unless the Contractor shall have been informed as soon as practicable by the Government of the suit or action alleging such infringement and shall have been given such opportunity as is afforded by applicable laws, rules, or regulations to participate in its defense. Further, this indemnity shall not apply to (1) an infringement resulting from compliance with specific written instructions of the Contracting Officer directing a change in the supplies to be delivered or in the materials or equipment to be used, or directing a manner of performance of the contract not normally used by the Contractor, (2) an infringement resulting from addition to or change in supplies or components furnished or construction work performed that was made subsequent to delivery or performance, or (3) a claimed infringement that is unreasonably settled without the consent of the Contractor, unless required by final decree of a court of competent jurisdiction.

(End of clause)

52.232-1 PAYMENTS (APR 1984)

The Government shall pay the Contractor, upon the submission of proper invoices or vouchers, the prices stipulated in this contract for supplies delivered and accepted or services rendered and accepted, less any deductions provided in this contract. Unless otherwise specified in this contract, payment shall be made on partial deliveries accepted by the Government if--

- (a) The amount due on the deliveries warrants it; or
- (b) The Contractor requests it and the amount due on the deliveries is at least \$1,000 or 50 percent of the total contract price.

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52.232-8 DISCOUNTS FOR PROMPT PAYMENT (MAY 1997)

(a) Discounts for prompt payment will not be considered in the evaluation of offers. However, any offered discount will form a part of the award, and will be taken if payment is made within the discount period indicated in the offer by the offeror. As an alternative to offering a prompt payment discount in conjunction with the offer, offerors awarded contracts may include prompt payment discounts on individual invoices.

(b) In connection with any discount offered for prompt payment, time shall be computed from the date of the invoice. If the Contractor has not placed a date on the invoice, the due date shall be calculated from the date the designated billing office receives a proper invoice, provided the agency annotates such invoice with the date of receipt at the time of receipt. For the purpose of computing the discount earned, payment shall be considered to have been made on the date that appears on the payment check or, for an electronic funds transfer, the specified payment date. When the discount date falls on a Saturday, Sunday, or legal holiday when Federal Government offices are closed and Government business is not expected to be conducted, payment may be made on the following business day.

52.232-11 EXTRAS (APR 1984)

Except as otherwise provided in this contract, no payment for extras shall be made unless such extras and the price therefore have been authorized in writing by the Contracting Officer.

52.232-23 ASSIGNMENT OF CLAIMS (JAN 1986) - ALTERNATE I (APR 1984)

(a) The Contractor, under the Assignment of Claims Act, as amended, 31 U.S.C. 3727, 41 U.S.C. 15 (hereafter referred to as "the Act"), may assign its rights to be paid amounts due or to become due as a result of the performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency. The assignee under such an assignment may thereafter further assign or reassign its right under the original assignment to any type of financing institution described in the preceding sentence. Unless otherwise stated in this contract, payments to an assignee of any amounts due or to become due under this contract shall not, to the extent specified in the Act, be subject to reduction or setoff.

- (b) Any assignment or reassignment authorized under the Act and this clause shall cover all unpaid amounts payable under this contract, and shall not be made to more than one party, except that an assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in the financing of this contract.
- (c) The Contractor shall not furnish or disclose to any assignee under this contract any classified document (including this contract) or information related to work under this contract until the Contracting Officer authorizes such action in writing.

52.232-25 PROMPT PAYMENT (JUN 1997)

Notwithstanding any other payment clause in this contract, the Government will make invoice payments and contract financing payments under the terms and conditions specified in this clause. Payment shall be considered as being made on the day a check is dated or the date of an electronic funds transfer. Definitions of pertinent terms are set forth in section 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see subparagraph (a)(4) of this clause concerning payments due on Saturdays, Sundays, and legal holidays.)

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- (a) Invoice payments. (1) Due date—(i) Except as indicated in subparagraph (a)(2) and paragraph (c) of this clause, the due date for making invoice payments by the designated payment office shall be the later of the following two events:
- (A) The 30th day after the designated billing office has received a proper invoice from the Contractor (except as provided in subdivision (a)(1)(ii) of this clause).
- (B) The 30th day after Government acceptance of supplies delivered or services performed by the Contractor. On a final invoice where the payment amount is subject to contract settlement actions, acceptance shall be deemed to have occurred on the effective date of the contract settlement.
- (ii) If the designated billing office fails to annotate the invoice with the actual date of receipt at the time of receipt, the invoice payment due date shall be the 30th day after the date of the Contractor's invoice; provided a proper invoice is received and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.
- (2) Certain food products and other payments. (i) Due dates on Contractor invoices for meat, meat food products, or fish; perishable agricultural commodities; and dairy products, edible fats or oils, and food products prepared from edible fats or oils are--
- (A) For meat or meat food products, as defined in section 2(a)(3) of the Packers and Stockyard Act of 1921 (7 U.S.C. 182(3)), and as further defined in Pub. L. 98-181, including any edible fresh or frozen poultry meat, any perishable poultry meat food product, fresh eggs, and any perishable egg product, as close as possible to, but not later than, the 7th day after product delivery.
- (B) For fresh or frozen fish, as defined in section 204(3) of the Fish and Seafood Promotion Act of 1986 (16 U.S.C. 4003(3)), as close as possible to, but not later than, the 7th day after product delivery.
- (C) For perishable agricultural commodities, as defined in section 1(4) of the Perishable Agricultural Commodities Act of 1930 (7 U.S.C. 499a(4)), as close as possible to, but not later than, the 10th day after product delivery, unless another date is specified in the contract.
- (D) For dairy products, as defined in section 111(e) of the Dairy Production Stabilization Act of 1983 (7 U.S.C. 4502(e)), edible fats or oils, and food products prepared from edible fats or oils, as close as possible to, but not later than, the 10th day after the date on which a proper invoice has been received. Liquid milk, cheese, certain processed cheese products, butter, yogurt, ice cream, mayonnaise, salad dressings, and other similar products, fall within this classification. Nothing in the Act limits this classification to refrigerated products. When questions arise regarding the proper classification of a specific product, prevailing industry practices will be followed in specifying a contract payment due date. The burden of proof that a classification of a specific product is, in fact, prevailing industry practice is upon the Contractor making the representation.
- (ii) If the contract does not require submission of an invoice for payment (e.g., periodic lease payments), the due date will be as specified in the contract.
- (3) Contractor's invoice. The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in subdivisions (a)(3)(i) through (a)(3)(viii) of this clause. If the invoice does not comply with these requirements, it shall be returned within 7 days after the date the designated billing office received the invoice (3 days for meat, meat food products, or fish; 5 days for perishable agricultural commodities, edible fats or oils, and food products prepared from edible fats or oils), with a statement of the reasons why it is not a proper invoice. Untimely notification will be taken into account in computing any interest penalty owed the Contractor in the manner described in subparagraph (a)(5) of this clause.

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- (i) Name and address of the Contractor.
- (ii) Invoice date. (The Contractor is encouraged to date invoices as close as possible to the date of the mailing or transmission.)
- (iii) Contract number or other authorization for supplies delivered or services performed (including order number and contract line item number).
- (iv) Description, quantity, unit of measure, unit price, and extended price of supplies delivered or services performed.
- (v) Shipping and payment terms (e.g., shipment number and date of shipment, prompt payment discount terms). Bill of lading number and weight of shipment will be shown for shipments on Government bills of lading.
- (vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).
- (vii) Name (where practicable), title, phone number, and mailing address of person to be notified in the event of a defective invoice.
- (viii) Any other information or documentation required by the contract (such as evidence of shipment).
- (ix) While not required, the Contractor is strongly encouraged to assign an identification number to each invoice.
- (4) Interest penalty. An interest penalty shall be paid automatically by the designated payment office, without request from the Contractor, if payment is not made by the due date and the conditions listed in subdivisions (a)(4)(i) through (a)(4)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday when Federal Government offices are closed and Government business is not expected to be conducted, payment may be made on the following business day without incurring a late payment interest penalty.
- (i) A proper invoice was received by the designated billing office.
- (ii) A receiving report or other Government documentation authorizing payment was processed, and there was no disagreement over quantity, quality, or Contractor compliance with any contract term or condition.
- (iii) In the case of a final invoice for any balance of funds due the Contractor for supplies delivered or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.
- (5) Computing penalty amount. The interest penalty shall be at the rate established by the Secretary of the Treasury under section 12 of the Contract Disputes Act of 1978 (41 U.S.C. 611) that is in effect on the day after the due date, except where the interest penalty is prescribed by other governmental authority (e.g., tariffs). This rate is referred to as the "Renegotiation Board Interest Rate," and it is published in the Federal Register semiannually on or about January 1 and July 1. The interest penalty shall accrue daily on the invoice principal payment amount approved by the Government until the payment date of such approved principal amount; and will be compounded in 30-day increments inclusive from the first day after the due date through the payment date. That is, interest accrued at the end of any 30-day period will be added to the approved invoice principal payment amount and will be subject to interest penalties if not paid in the succeeding 30-day period. If the designated billing office failed to notify the Contractor of a defective invoice within the periods prescribed in subparagraph (a)(3) of this clause, the due date on the corrected invoice will be adjusted by subtracting from such date the number of days taken beyond the prescribed notification of defects period. Any interest penalty owed the Contractor will be based on this adjusted due date. Adjustments will be made by the designated payment office for errors in calculating interest penalties.

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- (i) For the sole purpose of computing an interest penalty that might be due the Contractor, Government acceptance shall be deemed to have occurred constructively on the 7th day (unless otherwise specified in this contract) after the Contractor delivered the supplies or performed the services in accordance with the terms and conditions of the contract, unless there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. In the event that actual acceptance occurs within the constructive acceptance period, the determination of an interest penalty shall be based on the actual date of acceptance. The constructive acceptance requirement does not, however, compel Government officials to accept supplies or services, perform contract administration functions, or make payment prior to fulfilling their responsibilities.
- (ii) The following periods of time will not be included in the determination of an interest penalty:
- (A) The period taken to notify the Contractor of defects in invoices submitted to the Government, but this may not exceed 7 days (3 days for meat, meat food products, or fish; 5 days for perishable agricultural commodities, dairy products, edible fats or oils, and food products prepared from edible fats or oils).
- (B) The period between the defects notice and resubmission of the corrected invoice by the Contractor.
- (C) For incorrect electronic funds transfer (EFT) information, in accordance with the EFT clause of this contract.
- (iii) Interest penalties will not continue to accrue after the filing of a claim for such penalties under the clause at 52.233-1, Disputes, or for more than 1 year. Interest penalties of less than \$1 need not be paid.
- (iv) Interest penalties are not required on payment delays due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance or on amounts temporarily withheld or retained in accordance with the terms of the contract. Claims involving disputes, and any interest that may be payable, will be resolved in accordance with the clause at 52.233-1, Disputes.
- (6) Prompt payment discounts. An interest penalty also shall be paid automatically by the designated payment office, without request from the Contractor, if a discount for prompt payment is taken improperly. The interest penalty will be calculated as described in subparagraph (a)(5) of this clause on the amount of discount taken for the period beginning with the first day after the end of the discount period through the date when the Contractor is paid.
- (7) Additional interest penalty. (i) If this contract was awarded on or after October 1, 1989, a penalty amount, calculated in accordance with subdivision (a)(7)(iii) of this clause, shall be paid in addition to the interest penalty amount if the Contractor--
- (A) Is owed an interest penalty of \$1 or more;
- (B) Is not paid the interest penalty within 10 days after the date the invoice amount is paid; and
- (C) Makes a written demand to the designated payment office for additional penalty payment, in accordance with subdivision (a)(7)(ii) of this clause, postmarked not later than 40 days after the invoice amount is paid.
- (ii)(A) Contractors shall support written demands for additional penalty payments with the following data. No additional data shall be required. Contractors shall--
- (1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;
- (2) Attach a copy of the invoice on which the unpaid late payment interest was due; and
- (3) State that payment of the principal has been received, including the date of receipt.

- (B) Demands must be postmarked on or before the 40th day after payment was made, except that-
- (1) If the postmark is illegible or nonexistent, the demand must have been received and annotated with the date of receipt by the designated payment office on or before the 40th day after payment was made; or
- (2) If the postmark is illegible or nonexistent and the designated payment office fails to make the required annotation, the demand's validity will be determined by the date the Contractor has placed on the demand; provided such date is no later than the 40th day after payment was made.
- (iii)(A) The additional penalty shall be equal to 100 percent of any original late payment interest penalty, except-
- (1) The additional penalty shall not exceed \$5,000;
- (2) The additional penalty shall never be less than \$25; and
- (3) No additional penalty is owed if the amount of the underlying interest penalty is less than \$1.
- (B) If the interest penalty ceases to accrue in accordance with the limits stated in subdivision (a)(5)(iii) of this clause, the amount of the additional penalty shall be calculated on the amount of interest penalty that would have accrued in the absence of these limits, subject to the overall limits on the additional penalty specified in subdivision (a)(7)(iii)(A) of this clause.
- (C) For determining the maximum and minimum additional penalties, the test shall be the interest penalty due on each separate payment made for each separate contract. The maximum and minimum additional penalty shall not be based upon individual invoices unless the invoices are paid separately. Where payments are consolidated for disbursing purposes, the maximum and minimum additional penalty determination shall be made separately for each contract therein.
- (D) The additional penalty does not apply to payments regulated by other Government regulations (e.g., payments under utility contracts subject to tariffs and regulation).
- (b) Contract financing payments. (1) Due dates for recurring financing payments. If this contract provides for contract financing, requests for payment shall be submitted to the designated billing office as specified in this contract or as directed by the Contracting Officer. Contract financing payments shall be made on the [insert day as prescribed by Agency head; if not prescribed, insert 30th day] day after receipt of a proper contract financing request by the designated billing office. In the event that an audit or other review of a specific financing request is required to ensure compliance with the terms and conditions of the contract, the designated payment office is not compelled to make payment by the due date specified.
- (2) Due dates for other contract financing. For advance payments, loans, or other arrangements that do not involve recurring submissions of contract financing requests, payment shall be made in accordance with the corresponding contract terms or as directed by the Contracting Officer.
- (3) Interest penalty not applicable. Contract financing payments shall not be assessed an interest penalty for payment delays.
- (c) Fast payment procedure due dates. If this contract contains the clause at 52.213-1, Fast Payment Procedure, payments will be made within 15 days after the date of receipt of the invoice.
- 52.232-34 PAYMENT BY ELECTRONIC FUNDS TRANSFER—OTHER THAN CENTRAL CONTRACTOR REGISTRATION (MAY 1999)

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- (a) Method of payment. (1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT) except as provided in paragraph (a)(2) of this clause. As used in this clause, the term "EFT" refers to the funds transfer and may also include the payment information transfer.
- (2) In the event the Government is unable to release one or more payments by EFT, the Contractor agrees to either-
- (i) Accept payment by check or some other mutually agreeable method of payment; or
- (ii) Request the Government to extend payment due dates until such time as the Government makes payment by EFT (but see paragraph (d) of this clause).
- (b) Mandatory submission of Contractor's EFT information. (1) The Contractor is required to provide the Government with the information required to make payment by EFT (see paragraph (j) of this clause). The Contractor shall provide this information directly to the office designated in this contract to receive that information (hereafter: "designated office") by 10 days after award. If not otherwise specified in this contract, the payment office is the designated office for receipt of the Contractor's EFT information. If more than one designated office is named for the contract, the Contractor shall provide a separate notice to each office. In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to the designated office(s).
- (2) If the Contractor provides EFT information applicable to multiple contracts, the Contractor shall specifically state the applicability of this EFT information in terms acceptable to the designated office. However, EFT information supplied to a designated office shall be applicable only to contracts that identify that designated office as the office to receive EFT information for that contract.
- (c) Mechanisms for EFT payment. The Government may make payment by EFT through either the Automated Clearing House (ACH) network, subject to the rules of the National Automated Clearing House Association, or the Fedwire Transfer System. The rules governing Federal payments through the ACH are contained in 31 CFR part 210.
- (d) Suspension of payment. (1) The Government is not required to make any payment under this contract until after receipt, by the designated office, of the correct EFT payment information from the Contractor. Until receipt of the correct EFT information, any invoice or contract financing request shall be deemed not to be a proper invoice for the purpose of prompt payment under this contract. The prompt payment terms of the contract regarding notice of an improper invoice and delays in accrual of interest penalties apply.
- (2) If the EFT information changes after submission of correct EFT information, the Government shall begin using the changed EFT information no later than 30 days after its receipt by the designated office to the extent payment is made by EFT. However, the Contractor may request that no further payments be made until the updated EFT information is implemented by the payment office. If such suspension would result in a late payment under the prompt payment terms of this contract, the Contractor's request for suspension shall extend the due date for payment by the number of days of the suspension.
- (e) Liability for uncompleted or erroneous transfers. (1) If an uncompleted or erroneous transfer occurs because the Government used the Contractor's EFT information incorrectly, the Government remains responsible for-
- (i) Making a correct payment;
- (ii) Paying any prompt payment penalty due; and
- (iii) Recovering any erroneously directed funds.

- (2) If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect, or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and--
- (i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or
- (ii) If the funds remain under the control of the payment office, the Government shall not make payment and the provisions of paragraph (d) shall apply.
- (f) EFT and prompt payment. A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this contract if, in the EFT payment transaction instruction released to the Federal Reserve System, the date specified for settlement of the payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System.
- (g) EFT and assignment of claims. If the Contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Contractor shall require as a condition of any such assignment, that the assignee shall provide the EFT information required by paragraph (j) of this clause to the designated office, and shall be paid by EFT in accordance with the terms of this clause. In all respects, the requirements of this clause shall apply to the assignee as if it were the Contractor. EFT information that shows the ultimate recipient of the transfer to be other than the Contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of paragraph (d) of this clause.
- (h) Liability for change of EFT information by financial agent. The Government is not liable for errors resulting from changes to EFT information provided by the Contractor's financial agent.
- (i) Payment information. The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address in the contract.
- (j) EFT information. The Contractor shall provide the following information to the designated office. The Contractor may supply this data for this or multiple contracts (see paragraph (b) of this clause). The Contractor shall designate a single financial agent per contract capable of receiving and processing the EFT information using the EFT methods described in paragraph (c) of this clause.
- (1) The contract number (or other procurement identification number).
- (2) The Contractor's name and remittance address, as stated in the contract(s).
- (3) The signature (manual or electronic, as appropriate), title, and telephone number of the Contractor official authorized to provide this information.
- (4) The name, address, and 9-digit Routing Transit Number of the Contractor's financial agent.
- (5) The Contractor's account number and the type of account (checking, saving, or lockbox).
- (6) If applicable, the Fedwire Transfer System telegraphic abbreviation of the Contractor's financial agent.

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(7) If applicable, the Contractor shall also provide the name, address, telegraphic abbreviation, and 9-digit Routing Transit Number of the correspondent financial institution receiving the wire transfer payment if the Contractor's financial agent is not directly on-line to the Fedwire Transfer System; and, therefore, not the receiver of the wire transfer payment.

(End of clause)

52.243-1 CHANGES--FIXED-PRICE (APR 1984)

- (a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in any one or more of the following:
- (1) Drawings, designs, or specifications when the supplies to be furnished are to be specially manufactured for the Government in accordance with the drawings, designs, or specifications.
- (2) Method of shipment or packing.
- (3) Place of delivery.
- (b) If any such change causes an increase or decrease in the cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, the Contracting Officer shall make an equitable adjustment in the contract price, the delivery schedule, or both, and shall modify the contract.
- (c) The Contractor must assert its right to an adjustment under this clause within 30 days from the date of receipt of the written order. However, if the Contracting Officer decides that the facts justify it, the Contracting Officer may receive and act upon a proposal submitted before final payment of the contract.
- (d) If the Contractor's proposal includes the cost of property made obsolete or excess by the change, the Contracting Officer shall have the right to prescribe the manner of the disposition of the property.
- (e) Failure to agree to any adjustment shall be a dispute under the Disputes clause. However, nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.

52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS AND COMMERCIAL COMPONENTS (OCT 1998)

(a) Definitions.

- "Commercial item", as used in this clause, has the meaning contained in the clause at 52.202-1, Definitions.
- "Subcontract", as used in this clause, includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.
- (b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.
- (c) Notwithstanding any other clause of this contract, the Contractor is not required to include any FAR provision or clause, other than those listed below to the extent they are applicable and as may be required to establish the reasonableness of prices under Part 15, in a subcontract at any tier for commercial items or commercial components:

(1) 52.222-26, Equal Opportunity (E.O. 11246);

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- (2) 52.222-35, Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C. 4212(a));
- (3) 52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793); and
- (4) 52.247-64, Preference for Privately-Owned U.S.-Flagged Commercial Vessels (46 U.S.C. 1241)(flow down not required for subcontracts awarded beginning May 1, 1996).
- (d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

52.246-23 LIMITATION OF LIABILITY (FEB 1997)

- (a) Except as provided in paragraphs (b) and (c) below, and except for remedies expressly provided else-where in this contract, the Contractor shall not be liable for loss of or damage to property of the Government (excluding the supplies delivered under this contract) that (1) occurs after Government acceptance of the supplies delivered under this contract, and (2) results from any defects or deficiencies in the supplies.
- (b) The limitation of liability under paragraph (a) of this clause shall not apply when a defect or deficiency in, or the Government's acceptance of, the supplies results from willful misconduct or lack of good faith on the part of any of the Contractor's managerial personnel. The term "Contractor's managerial personnel," as used in this clause, means the Contractor's directors, officers, and any of the Contractor's managers, superintendents, or equivalent representatives who have supervision or direction of--
- (1) All or substantially all of the Contractor's business;
- (2) All or substantially all of the Contractor's operations at any one plant, laboratory, or separate location at which the contract is being performed; or
- (3) A separate and complete major industrial operation connected with the performance of this contract.
- (c) If the Contractor carries insurance, or has established a reserve for self-insurance, covering liability for loss or damage suffered by the Government through purchase or use of the supplies required to be delivered under this contract, the Contractor shall be liable to the Government, to the extent of such insurance or reserve, for loss of or damage to property of the Government occurring after Government acceptance of, and resulting from any defects or deficiencies in, the supplies delivered under this contract.

52.246-24 LIMITATION OF LIABILITY HIGH-VALUE ITEMS (FEB 1997)

- (a) Except as provided in paragraphs (b) through (e) below, and notwithstanding any other provision of this contract, the Contractor shall not be liable for loss of or damage to property of the Government (including the supplies delivered under this contract) that (1) occurs after Government acceptance of the supplies delivered under this contract, and (2) results from any defects or deficiencies in the supplies.
- (b) The limitation of liability under paragraph (a) above shall not apply when a defect or deficiency in, or the Government's acceptance of, the supplies results from willful misconduct or lack of good faith on the part of any of the Contractor's managerial personnel. The term "Contractor's managerial personnel," as used in this clause, means the Contractor's directors, officers, and any of the Contractor's managers, superintendents, or equivalent representatives wb ho have supervision or direction of--
- (1) All or substantially all of the Contractor's business;
- (2) All or substantially all of the Contractor's operations at any one plant, laboratory, or separate location at which the contract is being performed; or

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- (3) A separate and complete major industrial operation connected with the performance of this contract.
- (c) If the Contractor carries insurance, or has established a reserve for self-insurance, covering liability for loss or damage suffered by the Government through purchase or use of the supplies required to be delivered under this contract, the Contractor shall be liable to the Government, to the extent of such insurance or reserve, for loss of or damage to property of the Government occurring after Government acceptance of, and resulting from any defects or deficiencies in, the supplies delivered under this contract.
- (d)(1) This clause does not diminish the Contractor's obligations, to the extent that they arise otherwise under this contract, relating to correction, repair, replacement, or other relief for any defect or deficiency in supplies delivered under this contract.
- (2) Unless this is a cost-reimbursement contract, if loss or damage occurs and correction, repair, or replacement is not feasible or desired by the Government, the Contractor shall, as determined by the Contracting Officer-
- (i) Pay the Government the amount it would have cost the Contractor to make correction, repair, or replacement before the loss or damage occurred: (ii) Provide other equitable relief.
- (e) This clause shall not limit or otherwise affect the Government's rights under clauses, if included in this contract, that cover--
- (1) Warranty of technical data;
- (2) Ground and flight risks or aircraft flight risks; or
- (3) Government property.
- 52.249-2 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE) (SEP 1996)
- (a) The Government may terminate performance of work under this contract in whole or, from time to time, in part if the Contracting Officer determines that a termination is in the Government's interest. The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying the extent of termination and the effective date.
- (b) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:
- (1) Stop work as specified in the notice.
- (2) Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete the continued portion of the contract.
- (3) Terminate all subcontracts to the extent they relate to the work terminated.
- (4) Assign to the Government, as directed by the Contracting Officer, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.
- (5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts; the approval or ratification will be final for purposes of this clause.

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- (6) As directed by the Contracting Officer, transfer title and deliver to the Government (i) the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated, and (ii) the completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the Government.
- (7) Complete performance of the work not terminated.
- (8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the Government has or may acquire an interest.
- (9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in subparagraph (b)(6) of this clause; provided, however, that the Contractor (i) is not required to extend credit to any purchaser and (ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Government under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.
- (c) The Contractor shall submit complete termination inventory schedules no later than 120 days from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 120-day period.
- (d) After expiration of the plant clearance period as defined in Subpart 45.6 of the Federal Acquisition Regulation, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Contracting Officer. The Contractor may request the Government to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept title to those items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored, within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.
- (e) After termination, the Contractor shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer. The Contractor shall submit the proposal promptly, but no later than 1 year from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 1-year period. However, if the Contracting Officer determines that the facts justify it, a termination settlement proposal may be received and acted on after 1 year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.
- (f) Subject to paragraph (e) of this clause, the Contractor and the Contracting Officer may agree upon the whole or any part of the amount to be paid or remaining to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, whether under this paragraph (g) or paragraph (g) of this clause, exclusive of costs shown in subparagraph (g)(3) of this clause, may not exceed the total contract price as reduced by (1) the amount of payments previously made and (2) the contract price of work not terminated. The contract shall be modified, and the Contractor paid the agreed amount. Paragraph (g) of this clause shall not limit, restrict, or affect the amount that may be agreed upon to be paid under this paragraph.
- (g) If the Contractor and the Contracting Officer fail to agree on the whole amount to be paid because of the termination of work, the Contracting Officer shall pay the Contractor the amounts determined by the Contracting Officer as follows, but without duplication of any amounts agreed on under paragraph (f) of this clause:

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(1) The contract price for completed supplies or services accepted by the Government (or sold or acquired under subparagraph (b)(9) of this clause) not previously paid for, adjusted for any saving of freight and other charges.

(2) The total of--

- (i) The costs incurred in the performance of the work terminated, including initial costs and preparatory expense allocable thereto, but excluding any costs attributable to supplies or services paid or to be paid under subparagraph (f)(1) of this clause;
- (ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subdivision (g)(2)(i) of this clause; and
- (iii) A sum, as profit on subdivision (g)(2)(i) of this clause, determined by the Contracting Officer under 49.202 of the Federal Acquisition Regulation, in effect on the date of this contract, to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the Contracting Officer shall allow no profit under this subdivision (iii) and shall reduce the settlement to reflect the indicated rate of loss.
- (3) The reasonable costs of settlement of the work terminated, including--
- (i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;
- (ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and
- (iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.
- (h) Except for normal spoilage, and except to the extent that the Government expressly assumed the risk of loss, the Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (g) of this clause, the fair value, as determined by the Contracting Officer, of property that is destroyed, lost, stolen, or damaged so as to become undeliverable to the Government or to a buyer.
- (i) The cost principles and procedures of Part 31 of the Federal Acquisition Regulation, in effect on the date of this contract, shall govern all costs claimed, agreed to, or determined under this clause.
- (j) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraph (e), (g), or (l) of this clause, except that if the Contractor failed to submit the termination settlement proposal or request for equitable adjustment within the time provided in paragraph (e) or (1), respectively, and failed to request a time extension, there is no right of appeal.
- (k) In arriving at the amount due the Contractor under this clause, there shall be deducted-
- (1) All unliquidated advance or other payments to the Contractor under the terminated portion of this contract;
- (2) Any claim which the Government has against the Contractor under this contract; and
- (3) The agreed price for, or the proceeds of sale of, materials, supplies, or other things acquired by the Contractor or sold under the provisions of this clause and not recovered by or credited to the Government.
- (1) If the termination is partial, the Contractor may file a proposal with the Contracting Officer for an equitable adjustment of the price(s) of the continued portion of the contract. The Contracting Officer shall make any equitable adjustment agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be

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requested within 90 days from the effective date of termination unless extended in writing by the Contracting Officer.

(m)(1) The Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the contract, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor will be entitled.

- (2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Government upon demand, together with interest computed at the rate established by the Secretary of the Treasury under 50 U.S.C. App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or other disposition of termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.
- (n) Unless otherwise provided in this contract or by statute, the Contractor shall maintain all records and documents relating to the terminated portion of this contract for 3 years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this contract. The Contractor shall make these records and documents available to the Government, at the Contractor's office, at all reasonable times, without any direct charge. If approved by the Contracting Officer, photographs, microphotographs, or other authentic reproductions may be maintained instead of original records and documents.

52.249-8 DEFAULT (FIXED-PRICE SUPPLY AND SERVICE) (APR 1984)

- (a)(1) The Government may, subject to paragraphs (c) and (d) of this clause, by written notice of default to the Contractor, terminate this contract in whole or in part if the Contractor fails to--
- (i) Deliver the supplies or to perform the services within the time specified in this contract or any extension;
- (ii) Make progress, so as to endanger performance of this contract (but see subparagraph (a)(2) of this clause); or
- (iii) Perform any of the other provisions of this contract (but see subparagraph (a)(2) below).
- (2) The Government's right to terminate this contract under subdivisions (a)(1)(ii) and (1)(iii) of this clause, may be exercised if the Contractor does not cure such failure within 10 days (or more if authorized in writing by the Contracting Officer) after receipt of the notice from the Contracting Officer specifying the failure.
- (b) If the Government terminates this contract in whole or in part, it may acquire, under the terms and in the manner the Contracting Officer considers appropriate, supplies or services similar to those terminated, and the Contractor will be liable to the Government for any excess costs for those supplies or services. However, the Contractor shall continue the work not terminated.
- (c) Except for defaults of subcontractors at any tier, the Contractor shall not be liable for any excess costs if the failure to perform the contract arises from causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include (1) acts of God or of the public enemy, (2) acts of the Government in either its sovereign or contractual capacity, (3) fires, (4) floods, (5) epidemics, (6) quarantine restrictions, (7) strikes, (8) freight embargoes, and (9) unusually severe weather. In each instance the failure to perform must be beyond the control and without the fault or negligence of the Contractor.
- (d) If the failure to perform is caused by the default of a subcontractor at any tier, and if the cause of the default is beyond the control of both the Contractor and subcontractor, and without the fault or negligence of either, the Contractor shall not be liable for any excess costs for failure to perform, unless the subcontracted supplies or

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services were obtainable from other sources in sufficient time for the Contractor to meet the required delivery schedule.

- (e) If this contract is terminated for default, the Government may require the Contractor to transfer title and deliver to the Government, as directed by the Contracting Officer, any (1) completed supplies, and (2) partially completed supplies and materials, parts, tools, dies, jigs, fixtures, plans, drawings, information, and contract rights (collectively referred to as "manufacturing materials" in this clause) that the Contractor has specifically produced or acquired for the terminated portion of this contract. Upon direction of the Contracting Officer, the Contractor shall also protect and preserve property in its possession in which the Government has an interest.
- (f) The Government shall pay contract price for completed supplies delivered and accepted. The Contractor and Contracting Officer shall agree on the amount of payment for manufacturing materials delivered and accepted and for the protection and preservation of the property. Failure to agree will be a dispute under the Disputes clause. The Government may withhold from these amounts any sum the Contracting Officer determines to be necessary to protect the Government against loss because of outstanding liens or claims of former lien holders.
- (g) If, after termination, it is determined that the Contractor was not in default, or that the default was excusable, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the Government.
- (h) The rights and remedies of the Government in this clause are in addition to any other rights and remedies provided by law or under this contract.

252.209-7000 ACQUISITION FROM SUBCONTRACTORS SUBJECT TO ONSITE INSPECTION UNDER THE INTERMEDIATE-RANGE NUCLEAR FORCES (INF) TREATY (NOV 1995)

- (a) The Contractor shall not deny consideration for a subcontract award under this contract to a potential subcontractor subject to on-site inspection under the INF Treaty, or a similar treaty, solely or in part because of the actual or potential presence of Soviet inspectors at the subcontractor's facility, unless the decision is approved by the Contracting Officer.
- (b) The Contractor shall incorporate this clause, including this paragraph (b), in all solicitations and contracts exceeding the simplified acquisition threshold in part 13 of the Federal Acquisition Regulation, except those for commercial items.

<u>252.225-7000</u> BUY AMERICAN ACT--BALANCE OF PAYMENTS PROGRAM CERTIFICATE (SEP 1999)

- (a) Definitions. Domestic end product, qualifying country, qualifying country end product, and qualifying country end product have the meanings given in the Buy American Act and Balance of Payments Program clause of this solicitation.
- (b) Evaluation. Offers will be evaluated by giving preference to domestic end products and qualifying country end products over nonqualifying country end products.
- (c) Certifications. (1) The Offeror certifies that--
- (i) Each end product, except those listed in paragraphs (c) (2) or (3) of this provision, is a domestic end product; and

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(ii) Components of unknown origin are considered to have been mined, produced, or manufactured outside the United States or a qualifying country.

(2) The Offeror certifies that the following end products are qualifying country end products:

Oualifying Country End Products

Line Item Number	Country of Origin
(List only qualifying country end products.)	
(3) The Offeror certifies that the following end products are not	nqualifying country end products:
Nonqualifying C	ountry End Products
Line Item Number	Country of Origin (If known)

(End of provision)

252.225-7001 BUY AMERICAN ACT AND BALANCE OF PAYMENTS PROGRAM (MAR 1998)

(a) Definitions.

As used in this clause--

- (1) Components means those articles, materials, and supplies directly incorporated into end products.
- (2) Domestic end product means--
- (i) An unmanufactured end product that has been mined or produced in the United States; or
- (ii) An end product manufactured in the United States if the cost of its qualifying country components and its components that are mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. The cost of components shall include transportation costs to the place of incorporation into the end product and U.S. duty (whether or not a duty-free entry certificate may be issued). A component shall be considered to have been mined, produced, or manufactured in the United States (regardless of its source in fact) if the end product in which it is incorporated is manufactured in the United States and the component is of a class or kind-
- (A) Determined to be not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality; or
- (B) That the Secretary concerned determines would be inconsistent with the public interest to apply the restrictions of the Buy American Act.
- (3) End product means those articles, materials, and supplies to be acquired for public use under the contract. For this contract, the end products are the line items to be delivered to the Government (including supplies to be acquired by the Government for public use in connection with service contracts, but excluding installation and other services to be performed after delivery).

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- (4) Nonqualifying country end product means an end product that is neither a domestic end product nor a qualifying country end product.
- (5) Qualifying country means any country set forth in subsection 225.872-1 of the Defense Federal Acquisition Regulation Supplement.
- (6) Qualifying country component means an item mined, produced, or manufactured in a qualifying country.
- (7) Qualifying country end product means--
- (i) An unmanufactured end product mined or produced in a qualifying country; or
- (ii) An end product manufactured in a qualifying country if the cost of the components mined, produced, or manufactured in the qualifying country and its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components.
- (b) This clause implements the Buy American Act (41 U.S.C. Section 10a-d) in a manner that will encourage a favorable international balance of payments by providing a preference to domestic end products over other end products, except for end products which are qualifying country end products.
- (c) The Contractor agrees that it will deliver only domestic end products unless, in its offer, it specified delivery of other end products in the Buy American Act--Balance of Payments Program Certificate provision of the solicitation. An offer certifying that a qualifying country end product will be supplied requires the Contractor to deliver a qualifying country end product or a domestic end product.
- (d) The offered price of qualifying country end products should not include custom fees or duty. The offered price of nonqualifying country end products, and products manufactured in the United States that contain nonqualifying country components, must include all applicable duty. The award price will not include duty for end products or components that are to be accorded duty-free entry. Generally, when the Buy American Act is applicable, each nonqualifying country offer is adjusted for the purpose of evaluation by adding 50 percent of the offer, inclusive of duty.

252.225-7012 PREFERENCE FOR CERTAIN DOMESTIC COMMODITIES. (MAY 1999)

- (a) The Contractor agrees to deliver under this contract only such of the following articles that have been grown, reprocessed, reused, or produced in the United States, its possessions, or Puerto Rico --
- (1) Food;
- (2) Clothing;
- (3) Tents, tarpaulins, or covers;
- (4) Cotton and other natural fiber products;
- (5) Woven silk or woven silk blends;
- (6) Spun silk yarn for cartridge cloth;
- (7) Synthetic fabric, and coated synthetic fabric, including all textile fibers and yarns that are for use in such fabrics:
- (8) Canvas products;

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- (9) Wool (whether in the form of fiber or yarn or contained in fabrics, materials, or manufactured articles); or
- (10) Any item of individual equipment (Federal supply Classification 8465) manufactured from or containing such fibers, yarns, fabrics, or materials.
- (b) This clause does not apply --
- (1) To supplies listed in FAR section 25.108(d)(1), or other supplies for which the Government has determined that a satisfactory quality and sufficient quantity cannot be acquired as and when needed at U.S. market prices;
- (2) To foods which have been manufactured or processed in the United States, its possessions, or Puerto Rico;
- (3) To chemical warfare protective clothing produced in the countries listed in subsection 225.872-1 of the Defense FAR Supplement; or
- (4) To fibers and yarns that are for use in synthetic fabric or coated synthetic fabric (but does apply to the synthetic or coated synthetic fabric itself), if--
- (i) The fabric is to be used as a component of an end item that is not a textile product. Examples of textile products, made in whole or in part of fabric, include--
- (a) Draperies, floor coverings, furnishings, and bedding (Federal Supply Group 72, Household and Commercial Furnishings and Appliances):
- (B) Items made in whole or in part of fabric in Federal Supply Group 83, Textile/leather/furs/apparel/findings/tents/flags, or Federal Supply Group 84, Clothing, Individual Equipment and Insignia;
- (C) Upholstered seats (whether for household, office, or other use); and
- (D) Parachutes (Federal Supply Class 1670); or
- (ii) The fibers and yarns are para-aramid fibers and yarns manufactured in the Netherlands.

(End of clause)

252.231-7000 SUPPLEMENTAL COST PRINCIPLES (DEC 1991)

When the allowability of costs under this contract is determined in accordance with part 31 of the Federal Acquisition Regulation (FAR), allowability shall also be determined in accordance with part 231 of the Defense FAR Supplement, in effect on the date of this contract.

Specifications for Repairing 54" Butterfly Valves at the Portal Structure Waco Lake

1. Scope of Work:

Furnish all labor, tools, equipment and materials needed to remove, repair and install new rubber seals, paint and then re-install six (6) 54" butterfly valves and related piping necessary for removal of valves from portal structure at Waco Lake in accordance with the following specifications and attached drawings.

2. Material:

The Contractor shall furnish all materials, (including new valves if required) including new rubber valve seals, required to complete this job.

3. References

- 3.1 The attached drawings are for reference only, all alignment and dimensions shall be verified in the field.
- 3.2 The dams low flow gates leak, Contractor will be required to work in some wet conditions and perform water management as part of this contract.
- 3.3 The "Low Flow" pipes and valves are the only source of water supply for the City of Waco, the Contractor **must** coordinate all valve closings removal and adjustments with City and Corps representatives well in advance to ensure Waco has an adequate water supply. Any and all shut off periods must be approved in advance by the City, and must be limited to the agreed time frame. Any damage caused by the Contractor due to failure of adherence to the agreed time will be at Contractors expense.

4. Specifications:

Note: Water leaking pass the existing valves into the stilling basin area must be sealed off, the Contractor shall have six (6) weeks (after issuance of notice to proceed) to stop this water flow either by installing blind plates or by repairing/placing the valves.

4.1 Contractor shall develop a written work sequence describing the removal of each butterfly valve, related piping, where the blind plates will be installed, how the butterfly valves will be repaired, painted and how/when and where they will be reinstalled.

This work sequence will address an estimated number and length of times the City of Waco's water supply will be interrupted.

The repaired valves do not have to be reinstalled to their original location but must be reconnected to the existing operator stems and function property

- $\frac{4.2}{\text{and}}$ Contractor, as a minimum, shall remove the existing rubber seals and replace with new seals, inspect each valve butterfly for damage or cavitation. If the butterfly is damaged or has excessive cavitation, repairs shall be completed as per paragraph 4.3. (Reference drawings 0001, 0002, 9805, 9856, 10014, , 9817, 10013, Exhibit F-11).
- 4.3 Damaged or cavitation shall be repaired by sandblasting the area to near white metal, cleaning and then applying "Wear Resistant Putty (WR-2) 11420 by ITW Devcon or equal that has been approved by the COR prior to use. After putty has dried Contractor shall grind the area smooth to original form of the surface. Putty shall be mixed and applied as per manufacture's recommendation
- 4.4 Butterfly valves and all piping, that is removed to allow access to the valves, shall be painted with epoxy-Polyamide paint coating (see attached section 09914 and SSPC- paint 22), this includes the inside of pipe and valves. The epoxy painting process shall be performed outside the portal structure, either at the job site or at another location off Government Property. Where ever performed all work and sandblasting residue shall be handled in full compliance with EPA and TNRCC regulations
- 4.4a Additive #1 New Valves: The Contractor shall replace the old 54" butterfly valves with new 54" butterfly valves. The Contractor shall be responsible for matching the existing gear works, making all alignments and adjustments for fitting the new valves and insuring the new valves work properly. New valves shall be painted inside and out with epoxypolyamide_paint applied as per the attached section 09914.

The old valves will be come property of the Contractor and shall be considered as such in the bid proposal.

- 4.5 Contractor shall **only** paint the areas where the new bolts will be installed on piping connections that are not removed. These areas shall be mechanically sanded, cleaned of rust by using a steel wire brush and then clean the areas with solvent then painted epoxy-polyamide paint as per attached specifications in section 09914
- 4.6 Compression (dresser) coupling (The COR shall make the following choice):
 - 4.6.1 Replace the existing coupling with a new couplings of equal size, type and quality

or

- 4.6.2 Install new rubber seals of equal size, type and quality.
- 4.7 If the joints between the valves and piping has a flange type gasket, the Contractor shall replace the old gaskets with new flange gaskets of the same, size, type and equal or better quality. This shall be performed on all joints where the Contractor has broken the seal in order to remove the valves or piping.

- 4.8 All bolts in the valve flanges, piping and compression (dresser) couplings (unless a new coupling is installed) shall be replaced with new steel bolts, nuts and washers of the same size, strength and configuration as original bolts.
- 4.9 The Contractor shall insure that all fittings and connections are water tight, any leaking shall be the Contractors responsible to repair.
- 4.10 Contractor shall replace oil/grease in all valve gear boxes and oil in the valve operators as per manufacture's specifications. This shall include greasing all operator stem bearings.
- 4.11 Water Management: It is impossible to get a complete seal on the low flow gates. When the Contractor removes valves there will be some water to manage. The portal structure has existing sump pump but these units are not for long term continuous duty, so the Contractor shall develop a long term "Water Management Plan" to not include these pumps. All additional pumps required to manage the water while removing and replacing valves will be at Contractors' expense. The blind plates that are installed to block water flow while valves are being repaired shall have a manually operated relief valve so that built up water in the piping can be discharged prior to removing plates to reinstall valves.
- 4.12 Attached as appendix "A" is Suggested Valve Removal and Rework Sequence, however this plan is provided as information only and is not to be construed as final until Contractor has verified and adjusted to adhere to their activities or the Contractor should come up with his own sequence and work schedule, to meet the City of Waco's water needs.
- 4.13 Contractor shall check and adjust the "Philadelphia Gear Limitorque Operators" to insure proper closure and opening limits.
- 4.14 After all parts have been installed and adjusted the Contractor shall paint (touch up) any areas that were damaged during handling and/or installation. Contractor shall also paint all new nuts, bolts and washers with epoxy-Polyamide paint as per section 09914 and SSPC-Paint 22.

5 Control Plan:

- 5.1 Prior to beginning work, the Contractor shall submit, for Government review the Control Plan. This Plan shall be a, comprehensive safety and work plan, which shall include all submittals pertaining to job procedures, environmental controls, air monitoring and safety including, but not limited to the following:
 - a. Job Procedure and "Water Management Plan"
 - b. Confined Space Procedures
 - c. Ventilation/Air Monitoring Plan
 - d. Job hazard Analysis

- e. Quality Control Plan
- f. Scaffolding Plan

Any other plans required by environmental or safety laws or regulations. The Government shall have not more than 10 working days to review and comment on these plans. Revisions and approval of the plans will be required prior to beginning work.

- 5.1.1 Job Procedure and "Water Management Plan" This plan shall describe, in detail, how the job will be performed, which valves will be removed and in what order, how the valves will be rebuilt, and re-installation procedures and how the excess water will be managed during interval of work process.
- 5.1.2 **Confined Space** Confined space procedures are specified in EM 385-1-1 and CAR 29 Part 1910. The Contractor shall develop detailed written standard operating procedures for confined space monitoring, training, entry, work and emergency actions in accordance with EM 385-1-1, CAR 29 Part 1910.
- 5.1.3 Ventilation/Air Monitoring Plan This plan shall address the monitoring equipment and procedures to be used for testing the air in the confined spaces, prior to entry and during work, to determine oxygen content and to detect combustible and toxic atmospheres. Include equipment approvals for use in Immediately Dangerous to Life or Health (IDLH) environments for examples: Factory Manual, Underwriters Laboratory), certificates of calibration, with the firm and individual's signature conducting the calibration.
- 5.1.4 **Job Hazard Analysis -** This plan shall identify the hazards related to the job by identifying the job steps, hazards and action to eliminate or minimize hazard.
- 5.1.5 Quality Control Plan The quality control plan shall designate the Contractors' Quality Control Representative (CQCR) and shall provide a background history illustrating the qualifications of the CQCR related to the work required by this contract. The CQCR shall be responsible directly to the Contractor, shall ensure that the requirements of this contract are strictly adhered to and shall provide positive controls assuring the CONTROL PLAN is followed. The CQCR shall submit daily quality control reports (on a pre-approved form) to the Government at the end of each work day. This CQCR report shall describe the work performed that day, any noteworthy directions/guidance which was relayed to Contract workers, directions/guidance received from Government personnel and any unusual occurrences or circumstances which impact the job. The Government Quality Assurance Representative (GQAR) will inspect at his desecration the work site and ongoing work in order to obtain assurance to the Government that the CQC Plan is effective. In the event that the GOAR determines that the COC Plan is not providing adequate quality control, the Government

may require the Contractor resubmit the CQC Plan to correct any problem areas noted.

- 5.1.6 **Scaffolding Plan** This plan shall show or address the type and configuration of the scaffolding to be used at the job site.
- 5.2 Pre-work Conference- The Contractor shall meet with Government personnel at the Waco Lake Office within 15 calendar days after the award of this contract and prior to any work being performed for a Pre-work Conference. The Contractor shall coordinate with the Contracting Officer's Representative (COR) who will schedule this Pre-work conference. The Contractors' Project Manager, Proposed Contractor Quality Control Representative and Superintendent will attend this meeting. The purpose of this pre-work conference is to enable the COR to outline the procedures that will be followed by the Government in its administration of the Contract and to discuss the performance that will be expected from the Contractor. This conference will allow the Contractor an opportunity to ask questions about the Governments' Quality Assurance inspections, security requirements, regulations, etc.
- **5.3. General Safety Requirements -** The Contractor shall comply with all pertinent provisions of "Safety and Health Requirements Manual, "EM 385-1-1, dated 3 September 1996. The Contractor must also comply with Occupational Safety and Health Act (OSHA) standards. OSHA standards are subject to change. It is the Contractor's responsibility to maintain familiarity with current OSHA standards.

6. Special Site Conditions and Requirements:

- **6.1 Low Flow Gates -** Only authorized Government employees will operate the sluice gates. The Contractor is responsible for coordinating the operating time at least forty-eight (48) hours in advance with the Corp of Engineers at the Waco Office to ensure of timely operations.
- 6.2. Electricity Electrical power is available from a 120v, 20A outlet located at the meter pole just outside the fenced area of the Portal Structure. 460V AC three phase, 240V AC and 120V AC single phase electrical power is available at the same location. This electric power is available without charge as long as the COR deems the usage reasonable and necessary. The Contractor shall furnish all temporary connections required for his work including connectors and plugs. The Contractor shall obtain approval from the COR before making any connections and upon completion they shall be removed and restored to their pre-existing conditions.
- 6.3 Work Hours All work shall be performed between 0800 and 1630 hours Monday through Friday, excluding Government holidays unless an alternative schedule is provide in writing and approved forty-eight (48) hours in advance by the COR.
- 6.4 Water and Sanitation Facilities A public restroom is located near the job site. Water is only available at the Gate Attendant site. Both are within Bosque Park and may be used by the Contractors employees.

- 6.5 **Site Visit -** Contractors interested in bidding on this contract are encouraged to visit the work site. Please make arrangements for site visits by contacting Will Haning at (254) 622-3332 or Abel Martinez at 254-756-5359 between 0800 and 1630 hours Monday through Friday.
- 6.6 Damage or Loss of Contractor's Supplies, Materials or Property The Contractor is responsible for taking the action necessary to protect all supplies and property, including material and supplies owned by the Government, against damage, theft or loss. The Government assumes no responsibility for loss or damage to any material, supplies or property once it is received by the Contractor or is in his possession.
- 6.7 Damage to Government and Private Property The Contractor shall be responsible for any damage to Government or private property and/or injury to any person as a result of his operation. The Contractor shall notify the COR immediately. The Contractor shall advise the COR of any damage to Government facilities due to vandalism. Trucks, trailers and other equipment will be operated on existing roads.

7. Job Completion, Acceptance and Payment:

- 7.1 Payment will **not** be made by the Government until **all** the Contractor's work has been completed, inspected and approved by COR or his representative and all payrolls are received and any corrections are made (if necessary).
- 7.2 The Contractor will allow the Government a minimum of 10 day in which to inspect, check for leaks and operation of butterfly valves. Leaks or adjustment shall be corrected by the Contractor prior to acceptance.
- 7.3 The work area shall be cleared of all debris, trash and other foreign materials resulting from the Contractors' operation. Disposal of such materials and trash will be the responsible of the Contractor and be off of Government property.
- 7.4 Work performed as prescribed by these specifications shall be paid for at the unit price bid according to the bid schedule. This price shall be full compensation for furnishing all labor, tools, equipment, materials, and incidentals necessary to complete the work as specified.

ACCOMPANYING AMENDMENT NO. 0002 TO SOL. DACW63-00-B-0004 Appendix A

Suggested Valve Removal and Reinstalling Sequence-

The following is a suggestion ONLY for removing and then reinstalling the valves and piping with a minimum amount of shut down time.

1. West - Low Flow Line (Line "W"):

- 1.2 Remove 90° elbow (line "W, install a blind plate (BP-#1) over the end of this pipe.
- 2.2 Remove valve #1 (V-#1), piping, tee, dresser coupling and Valve #2 (V-#2).
 - 2.3 Install blind plate over the end of the pipe (BP-#2).

2. East - Low Flow (Line "E"):

- 2.1 Remove 90° elbow, tee, Valve # 5 (V-5), Valve #4, (V-#4), install blind plates over pipes where valves #4 and #5 were removed (BP-#3) and (BP-#4).
- 2.2 Remove dresser coupling and valve #3 (V-#3), install blind plate over the end of the pipe (BP-#5).
- 3. Repair Valves: Repair Valves #1, 2, 3, 4 and 5.

4. Replacing Valves - #3, 4, 5 and 6:

- 4.1 Replace valve #6 (V-#6) with a "repaired valve", remove BP-#5, replace valve #3 (V-#3), install pipe and dresser coupling, remove BP-#3 and BP-#4, install repaired valves #4 (V-#4) and #5 (V-#5), install piping and 90° elbow.
- 5. Repair Valve Repair valve #6.

6. Replacing Valves #1 and 2:

- 6.1 Install valve #6 (V-#6) where valve #2 (V-#2) was removed.
- 6.2 Remove blind plate BP-#2 and install pipe, tee, valve and dresser coupling.
- 6.3 Remove blind plate (BS-#1) and install valve #1 (V-#1) and 90° elbow.

SSPC-Paint 22 November 1, 1982 Editorial Changes August 1, 1991

Steel Structures Painting Council
PAINT SPECIFICATION NO. 22
Epoxy-Polyamide Paints
(Primer, Intermediate, and Topcoat)

1. Scope

- 1.1 This specification covers three types of two-component epoxy-polyamide coatings-primer, intermediate, and topcoat-for use on steel surfaces. The information described herein shall be used as a control for evaluation of proposed coating systems. See SSPC-PS 13.01, "Epoxy-Polyamide Painting System," for specifications covering system requirements, including surface preparation, application, and thickness.
- 1.2 These coatings, when applied over properly prepared steel surfaces, are suitable for exposures in environmental zones 2A (frequently wet by fresh water), 2B (frequently wet by salt water), 3A (chemical, acidic), 3B (chemical, neutral), 3C (chemical, alkaline), 3D (chemical, solvents); but not for potable water tanks. They are intended for brush or spray application over steel prepared in accordance with SSPC-SP 6, "Commercial Blast Cleaning," or SSPC-SP 8, "Pickling." The performance will be improved by a better degree of surface preparation. They are suitable for shop, field, or maintenance coatings and are to be applied in accordance with SSPC-PA 1, "Shop, Field, and Maintenance Painting." If the primed part of the structure is to be exposed to the weather, it should be topcoated as soon as practical,

2. Description

- 2.1 The coatings supplied under this specification are two-part products composed of a base component and a curing agent component. When the two components are mixed in the proper proportions the coatings are capable of curing at temperatures as low as 50'F (10 *C) and be fully cured in seven days.
- 2.2 The primer contains approximately 65% by volume of nonvolatile film-forming solids (pigment and binder). The theoretical spreading rate for a 2.5 mil (63 microns) dry film thickness is 420 square feet/U.S. gallon (10.2 square meters/liter).
- 2.3 The intermediate contains approximately 65% by volume of nonvolatile film-forming solids (pigment and binder). The theoretical spreading rate for a 2.5 mil (64 microns) dry film thickness is 420 square feet/U.S. gallon (10.2 square meters/liter).
- 2.4 The topcoat contains approximately 60% by volume of nonvolatile film-forming solids (pigment and binder). The theoretical spreading rate for 2.5 mil (63 microns) dry film thickness is 380 square feet/U.S. gallon (9.5 square meters/liter).

3. Reference Standards

- 3.1 The standards referenced in this specification are listed in Sections 3.4 through 3.7 and form a part of this specification.
- 3.2 The latest issue, revision, or amendment of the referenced standards in effect on the date of invitation to bid shall govern unless otherwise specified.
- 3.3 If there is a conflict between the requirements of any of the cited reference standards and this specification, the requirements of this specification shall prevail.

3.4 STEEL STRUCTURES PAINTING COUNCIL (SSPO SPECIFICATIONS:

PA 1 Shop, Field, and Maintenance Painting

PA 2 Measurement of Dry Paint Thickness with Magnetic Gages

PA Guide 3 A Guide to Safety in Paint Application

SP 6 Commercial Blast Cleaning

SP 8 Pickling

SP 10 Near-White Blast Cleaning

PS 13.01 Epoxy-Polyamide Painting System

Vis 2 Standard Method of Evaluating Degree of Rusting on

Painted Steel Surfaces

3.5 AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) STANDARDS:

3.5.1 SPECIFICATION FOR INGREDIENTS:

D 209 Lampblack

D 263 Chrome Oxide Green

D 331 2-Ethoxy Ethanol

D 364* Industrial Grade Xylene

D 476 Titanium Dioxide Pigments

D 605 Magnesium Silicate Pigments

D 607 Wet Ground Mica Pigment

D 1153 Methyl Isobutyl Ketone

D 1648 Basic Lead Silico-Chromate

D 3722 Natural Red and Brown Iron Oxides

3.5.2 TEST METHODS FOR PROPERTIES:

B 117 Salt Spray (Fog) Testing

D 522 Elongation of Attached Organic Coatings with

Conical Mandrel Apparatus

D 562 Consistency of Paints Using the Stormer Viscometer

TABLE I

COMPOSITION OF REFERENCE FORMULATIONS

		PF	RIMER			INTER	RMEDIATE	1		TOPCO	ΥT		
INGREDIENTS	Lbs	. (kg)	Gals	s. (L)	Lbs	. (kg)	Gals.	. (L)	Lbs.	(kg)	Gals.	(L)	STANDARDS ASTM
BASE COMPONENT:													
Red Iron Oxide	17	(7.7)	0.46	(1.7)	68	(30.9)	1.83	(6.9)	-		-		D 3722
Rutile Titanium Dioxide	-		-		-		-		115	(52.2)	3.29	(12.5)	D 476
Chromium Oxide	_		_		_		_		63	(28.6)	1.45	(5.5)	D 263
Magnesium Silicate	85	(38.6)	3.58	(13.6)	68	(30.9)	2.86	(10.8)	55	(25.0)	2.32	(8.8)	D 605
Mica	28	(12.7)	1.19	(4.5)	23	(10.4)	0.98	(3.7)	18	(8.2)	0.77	(2.9)	D 607
Lampblack	_	, ,	_	, , ,	_	,	_	,	2	(0.9)	0.13	(0.5)	D 209
Organo	8	(3.6)	0.56	(2.1)	8	(3.6)	0.56	(2.1)	8	(3.6)	0.56	(2.1)	_
Montmorillonite	el (1	. ,		(/		(,		(/	•	(,		(/	
95/5 Methanol/Water	- '	(1.4)	0.40	(1.5)	3	(1.4)	0.40	(1.5)	3	(1.4)	0.40	(1.5)	-
Epoxy Resin (2)	199	(90.3)		(76.1)	201	(91.3)	20.30	(76.9)	212	(96.2)	21.41	(81.1)	-
Leveling Agent (3)		(4.5)		(4.5)	10	(4.54)	1.18	(4.5)	11	(5.0)	1.29	(4.9)	-
Methyl Isobutyl Ketone	43	(19.5)		(24.4)	44	(20.0)	6.59	(25.0)	46	(20.9)	6.89	(26.1)	D 1153
Xylene 2-Ethoxy Ethanol	126 67	(57.2) (30.4)		(65.7) (32.8)	150 65	(68.1) (29.5)	20.64 8.40	(78.1) (31.8)	111 69	(50.4) (31.3)	15.28 8.91	(57.8) (33.7)	D 364* D 331
TOTALS (Base Component)	586	(266)	59.93	(226.9)	640	(290.6)	63.7	(241.3)	713	(324.7)	62.7 (237.4)	
CURING AGENT COMPON	NENT:												
Polyamide Resin(4) Xylene	107 104	(48.6) (47.2)	13.20 14.32		108 109	(49.0) (49.5)	13.33 15.02	(50.5) (56.7)	114 142	(51.8) (64.5)	14.07 19.56	(53.3) (74.0)	-
Aylenc		(17.2)		(31.2)		(15.5)		(30.7)		(01.5)		(71.0)	
TOTALS (Curing Agent Comp.	211	(95.8)	27.52	(104.2)	217	(98.5)	28.35	(107.2)	256	(116.3)	33.63	(127.3)
(curing rigene comp	====		====		====		=====		====		=====		
TOTALS (Formulation)	797	(361.7)	87.45	(331.0)	857	(389.1)	92.09	(348.5)	969	(440.0)	96.3	(364.7)
					2 Epor	Industrie n Resin 1 lle 216-8	001, She	ell Chemi	ical Co	mpany or			

TABLE 2 ANALYSIS

	PRI	MER INTERMEDIATE TOPCOAT		STANDARDS			
CHARACTERISTICS	Min.	Max.	Min.	Max.	Min.	Max.	ASTM
Nonvolatiles, % by weight	65	_	65	-	60	-	D 2369

⁴ Versamid 115 (Henkel), Uni-Rez 2115 (Union Camp) or equivalent

TABLE3
EPOXY RESIN ANALYSIS

CHARACTERISTICS		REQUIREMENT Min.	NTS Max.	ASTM METHOD
Epoxide Equivalent Color, Gardner (40% in Butyl	Carbitol)	450 -	550 4	D 1652 D 1544
D 610	Evaluating Degree	of Rusting	on Painting Steel	Surfaces
D 714	Evaluating Degree	of Blisteri	ng of Paints	
D 1210	Fineness of Disper	rsion of Pig	ment-Vehicle Syste	ms
D 1310	Flash Point of Li	quids by Tag	Open-Cup Apparatu	S
D 1475	Density of Paint,	Varnish, La	cquer, and Related	Products
D 1544	Color of Transpar	ent Liquids	(Gardner Color Sca	le)
D 1640	Drying, Curing, or Room Temperature	r Film Forma	tion of Organic Co	atings at
D 1652	Epoxy Content of	Epoxy Resins		
D 1654	Evaluating Painter Corrosive Environ		Specimens Subjecte	d to
D 2369	Volatile Content	of Paints		

3.6 FEDERAL STANDARDS:

MIL-P-24441 Paint, Epoxy-Polyamide, General Specification for

3.7 AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) STANDARD:

Z129.1 Precautionary Labeling of Hazardous Industrial Chemicals

4. Composition

- 4.1 Ingredients and proportions of the reference formulations shall be as specified in Table 1.
- 4.2 Each component of these paints based on the specified ingredients shall be uniform, stable in storage, and free from grit and coarse particles.
- 4.3 The base component of each coating shall contain an epoxy resin together with anti-corrosion pigments, color pigments, mineral fillers, gellant, leveling agent, and volatile solvents. The epoxy resin shall be a di-epoxide condensation product of biphenol A and epichlorohydrin with terminal epoxide group.
- 4.4 The curing agent component of each coating shall contain a liquid type polyamide resin and volatile solvent. The polyamide resin shall be a condensation product of dimerized fatty acids and polyamines.

4.5 Each coating shall conform to the composition (analysis) requirements of Table 2.

5. Properties

- 5.1 The epoxy resin shall meet the requirements of Table 3.
- 5.2 The undiluted polyamide resin shall meet the requirements of Table 4.
- 5.3 Coatings supplied under this specification shall be comparable in performance to the reference formulations of Table 1. They need not be composed of the quantities and types of ingredients given in Table 1. However, if substitutions of other ingredients are made, the coatings shall meet the performance requirements of this specification; and, when incorporated into a painting system, the performance requirements of SSPC-PS 13.01, "Epoxy-Polyamide Painting System."
- 5.4 After combining the base and curing agent components, the primer, intermediate, and topcoat shall conform to the requirements of Table 5 and Sections 5.5 through 5.9.
- 5.5 POT LIFE: Determine pot life of the individual coatings as follows. Thoroughly mix a one-pint sample of the finished coating and let stand at 77 ± 3 *F (25 ± 2 *C) for eight hours. At the end of this time there shall be no evidence of gelation. The coatings shall be in a freeflowing condition and brushable without thinning. NOTE: When mixing larger volumes, more heat will develop with a resultant shortening of the pot lite.
- 5.6 SOLVENT RESISTANCE: The development of solvent (methyl ethyl ketone) resistance is required as an indication of satisfactory cure and subsequent chemical resistance. Apply the individual coating (primer, intermediate, topcoat) by spray or brush to a clean test panel so that a dry film thickness of two to three mils (51-76 microns) per coat is obtained. Air dry the panel for five days at 77 \pm 3 *F (25 :E 2 *C) and relative humidity of 40%-50%. Following the curing period, saturate a small cottonball with methyl ethyl ketone and place on the test panel under a watch glass for 30 minutes. After a ten-minute recovery period, determine the pencil hardness of the coating. The minimum allowable rating is "7B."

Determine pencil hardness as follows: Using a series of drawing leads (either wood clinched or secured in a mechanical holder), expose approximately 1/4" (6 mm) of lead. With a rotary motion square the point of the lead against No. 400 grit paper. Hold the lead at approximately 45 degrees and push forward against the film using a pressure just short of breaking the lead. If penetration is not made, repeat using the next harder lead until penetration is made. Rate the film by indicating the hardest lead that does not penetrate.

- 5.7 TEST PANELS: Test panels shall be carbon steel-minimum size 4" x 8" x 1/8" (10.2 x 20.3 x .31 cm)-unless otherwise specified. They shall be blast cleaned in accordance with SSPC-SP 10, "NearWhite Blast Cleaning." Air drying and test conditions shall be at 77 \pm 3 degrees F (25 \pm 2 degrees C), and 40%-50% relative humidity.
- 5.8 ELCOMETER ADHESION TEST: Prepare test panels as in Section 5.7 using 1/4" (6 mm) thick steel plate. Apply coatings at 2.0-3.0 mils (51-76 microns) dry film thickness per coat in accordance with the following schedule.

COATING	SUBSTRATE	DRYING TIMES
Primer	Steel	Five days

TABLE 4
POLYAMIDE RESIN ANALYSIS

		REQUI	ASTM	
CHARACTERISTICS		Min.	Max.	METHOD
Amine Value (1)		230	250	_
Color, Gardner		-	8	D 1544
Specific Gravity		0.96	0.98	D 1475
Viscosity, Brookfield, at 75 degree C, poises	31	37	-	

(1) 1010110110 4014 0101401011

TABLE 5
PROPERTIES

	PRIM	MER	INTERME	DIATE	TOPCO.	AT	STANDARDS	
CHARACTERISTICS	Min.	Max.	Min.	Max.	Min.	Max.	ASTM	
Viscosity shear rate 200 rpm Kreb Units	65	85	60	80	60	80	D562	
Weight per U.S. Gallon, Pounds	11.7 (1.4 kg/L)	12.7 (1.5 kg/L)	11.0 (1.3 kg/L)	12.0 (1.4 kg/L)	9.7 (1.2 kg/L)	10.7 (1.3 kg/L)	D 1475	
Fineness of grind, Hegman units	3.0	-	3.0	-	3.0	-	D 1210	
Drying time (75 degrees F [25 degrees Tack-free, hours Dry Hard, hours Dry Through, hours	s C], 45% R.H. - - -): 2 5 8	- - -	2 5 8	- - -	2 5 8		
Flash Point, degrees F	81	_	81	_	81	_	D 1310	

Intermediate Primer .72 hours for primer 72 hours for intermediate

Topcoat Primer and 72 hours for primer 72 hours for intermediate 72 hours for intermediate Five days for topcoat

The adhesion of the prime coat to the substrate, intercoat adhesion, or cohesion of any coat of the painting system shall be determined by the adhesion tester (1,000 pounds, 156 kg). Prepare test panels as described above. Lightly sand the coating surface and aluminum dolly, and apply a quick set adhesive containing Alpha Cyanoacrylate. Allow the adhesive to cure overnight. Scribe the coating and adhesive around the dolly prior to testing. Make a minimum of three trials and report the average. An average of 400 pounds per square inch (280,000 kg/square meter) is considered acceptable.

5.9 SALT SPRAY RESISTANCE (PRIMER ONLY): Prepare at least two test panels as in Section 5.7 and apply one prime coat at 2.5-3.0 mils (64-76) microns) dry film thickness. Air dry five days. Protect the backs and edges. Scribe the panels as per ASTM D 1654 to base metal and exposure for 500 hours at five percent salt spray in accordance with ASTM B. 117. During the test, the panels shall be inclined at an angle of 15 degrees off the vertical, At the end of the test period, the primer shall have a minimum rust grade rating of "8." Blistering shall be no more than Blister Size No. 4, few. Photographic

standards SSPC-Vis 2, "Standard Method of Evaluating Degree of Rusting on Painted Steel Surfaces," or ASTM D 610 may be used for rusting, and ASTM D 714 may be used for blistering.

6. Labeling

- 6.1 Refer to ANSI Standard Z129.1, "Precautionary Labeling of Hazardous Industrial Chemicals." Other guidelines can be found in the National Paint and Coating Association (NPCA) "Paint Industry Labeling Guide."
- 6.2 MARKING OF CONTAINERS: Each container of each component shall be legibly marked with the following information:

Name: Epoxy-Polyamide Coating (Specify Which: Primer, Intermediate, or Topcoat) Specification: SSPC-Paint 22

Component:

Color:

Lot Number:

Stock Number:

Date of Manufacture:

Quantity of Paint in Container:

Information and Warnings as may be required by Federal and State Laws:

Manufacturer's Name and Address:

- 6.3 DIRECTIONS FOR USE: The manufacturer shall supply complete instructions covering uses, surface preparation, mixing, thinning, application method, application conditions, pot life, wet and dry film thicknesses, temperature and humidity limitations, drying time, etc., with each container of paint.
 - 6.4 The following are guidelines for the instructions required:

Mixing and Thinning: Each coating component should be stirred to a smooth homogenous mixture. Then the proper amount of base and curing agent components, as recommended by the manufacturer, should be added together and mixed thoroughly. After allowing to stand for 30 minutes at 77 ± 3 degrees F (25 \pm 2 degrees C), the coating may be thinned up to 12% by volume of the total coating for spraying. The coating should be applied within the manufacturer's pot life limitations.

Coating Thickness: The coatings are usually applied by spray to a dry film thickness of two to three mils (51-76 microns) per coat (total dry thickness seven to nine mils (178-229 microns), as measured in accordance with SSPC-PA 2, "Measurement of Dry Paint Thickness with Magnetic Gages."

Cure Time Between Coats: Under normal conditions, each coat should be air dried a minimum of four hours, but no more than 72 hours between application coats. In very hot weather with surfaces exposed to direct sunlight, it may be necessary to limit the intercoat drying period to 24 hours or less. Long drying time between coats may cause poor intercoat adhesion. These coatings shall not be applied at temperatures below 50 degrees F (10 degrees C).

7. Inspection

7.1 All materials supplied under this specification shall be subject to timely inspection by the purchaser or his authorized representative. The purchaser shall have the right to reject any material(s) supplied which is (are) found to be defective under

this specification. In case of dispute, the arbitration or settlement procedure, if any, established in the procurement documents shall be followed. If no arbitration procedure is established, the procedure specified by the American Arbitration Association shall be used.

- 7.2 Samples of any or all ingredients used in the manufacture of this paint may be requested by the purchaser and shall be supplied upon request, along with the supplier's name and identification for the material.
- 7.3 Unless otherwise specified, the methods of sampling and testing should be in accordance with Federal Test Method Standard No. 141, or applicable methods of the American Society for Testing and Materials.
- 7.4 The procurement documents should establish the responsibility for samples, testing, and any required affidavit certifying full compliance with the specification.

8. Safety

- 8.1 All safety requirements stated in this specification apply in addition to any applicable federal, state, and local rules and requirements. They also shall be in accord with instructions of the paint manufacturer and requirements of insurance underwriters.
- 8.2 Paints are hazardous because of their flammability and potential toxicity. Proper safety precautions shall be observed to protect against these recognized hazards. Safe handling practices are required and should include, but not be limited to, the provisions of SSPC-PA Guide 3, "A Guide to Safety in Paint Application" and to the following:
- 8.2.1 Keep paints away from heat, sparks, and open flame during storage, mixing, and application. Provide sufficient ventilation to maintain vapor concentration at less than 25% of the lower explosive limit.
- 8.2.2 Avoid prolonged or repeated breathing of vapors or spray mists, and prevent contact of the paint with the eyes or skin.
 - 8.2.3 Clean hands thoroughly after handling paints and before eating or smoking.
- 8.2.4 Provide sufficient ventilation to insure that vapor concentrations do not exceed the published permissible exposure limits. When necessary, supply appropriate personal protective equipment and enforce its use.
- 8.3 This paint may not comply with some air pollution regulations because of its hydrocarbon solvent content.
- 8.4 Ingredients in this paint, if so formulated, and which may pose a hazard include lead and chromate-containing pigments, hydrocarbon solvents, and plasticizers. Applicable regulations governing safe handling practices shall apply to the use of this paint.

9. Notes***

9.1 While every precaution is taken to insure that all information furnished in SSPC specifications is as accurate, complete, and useful as possible, the SSPC cannot assume responsibility or incur any obligation resulting from the use of any materials, paints, or methods specified therein, or of the specification itself.

- 9.2 Reference is made to MIL-P-24441, "Paint, Epoxy-Polyamide, General Specification for," designed for both fresh and salt water immersion service, where lead-free or higher flash point epoxy coatings are required.
 - 9.3 Other generic topcoats may be used for improved color and gloss retention.
- 9.4 Alternative two-coat system high-build can be used provided it meets the performance criteria in this specification.
- 9.5 It is well recognized that epoxy-polyamide coating systems are often applied over zinc-rich primers. This will result in superior long-term protection. However, the manufacturer's instructions need to be followed for the proper application technique. Such painting systems may also include an aliphatic urethane topcoat.
- * ASTM D 364 has been discontinued.
- ** This pigment is to be used for the reference (i.e., control) paint, A lead and chromate free pigment may be used provided it meets performance requirements. Users of lead or chromate containing paints are urged to follow all health. safety, and environmental regulations in applying, handling, or disposal of these materials.
- *** Notes are not requirements of this specification.

ACCOMPANYING AMENDMENT 0002 TO SOLICITATION NO. DACW63-00-B-0004 SECTION 09914 - Painting

with Epoxy-Polyamide Paints

1. **SCOPE:** The work covered by this section of the specifications consists of furnishing all plant, labor, equipment, appliances, and materials and in performing all operations in connection with preparation of surfaces and application of paint and other specified materials. This work shall be accomplished in complete and strict accordance with the specifications and the applicable drawings and shall be subject to the terms and conditions of the contract.

2. **DEFINITIONS AND NOMENCLATURE**

- 2.1 <u>Paint</u>: The term "paint" as used herein includes emulsions, enamels, paints, stains, varnishes, sealers, and other coatings, organic or inorganic, whether they be used as prime, intermediate, or finish coats. This definition does not include troweled or sprayed-metal coatings.
- 2.2 <u>Field Painting</u>: The term "field-painting" as referred to herein and/or on the drawings covers surface preparation and painting operations conducted at the project site.
- 2.3 <u>Touch-up Painting</u>: The term "touch-up painting" refers to the application of paint on small areas of painted surfaces to repair mars, scratches, and other defects where the coating has deteriorated in order to restore the coating to an unbroken condition.
- 2.4 <u>Repainting</u>: The term "repainting" designates the cleaning and recoatings with the same or similar materials originally used on extensive areas on which the existing coatings have deteriorated or otherwise have not provided adequate protection.

3. APPLICABLE PUBLICATIONS

3.1 American Water Works Association

ANSI/AWWA C210-97 Liquid-Epoxy Coating Systems for the Interior and Exterior of steel Water Pipelines

- 3.2 Steel Structures Painting Council Specifications (SSPC).
 - SSPC-SP 1 Solvent Cleaning.
 - SSPC-SP 3 Power Tool Cleaning.
 - SSPC-SP 10 Near-White Metal Blast Cleaning.
 - SSPC-Paint 22 Epoxy-Polyamide Paints
 - SSPC Specifications are available from:

 Steel Structures Painting Council
 4400 Fifth Avenue

3.3 U.S. Army Corps of Engineer Publications.

EM 385-1-1 Safety and Health Requirements Manuals.

4. PAINT APPLICATION:

- 4.1 **TYPE OF PAINT:** A liquid, epoxy-polyamide paint that meets the requirements of Steel Structures Paint Council Specification SSPC-Paint 22 shall be applied to surfaces of new or reworked valves, any pipe joints removed from the valve box, and new bolts and nut after installation. The epoxy paint shall be applied in accordance with instruction from the manufacture and in accordance with the American Water Works Association Standard AWWA C210-97. The contractor shall apply a minimum of three coats of paint with the minimum dry film thickness of each coat as specified by the manufacturer. However, the minimum total dry film thickness of all coats of paint shall not be less than 16 mils.
- 4.2 GENERAL: The finished coating shall be free from holidays, pinholes, bubbles, runs, drops, ridges, waves, laps, excessive or unsightly brush marks, and variations in color, texture, and gloss. Application of initial or subsequent coatings shall not commence until a Government representative has verified that atmospheric conditions and the surfaces to be coated are satisfactory or has waived specific verification. All paint coats shall be applied in such manner as to produce an even, continuous film of uniform thickness. Edges, corners, crevices, seams, joints, welds, rivets, and other surface irregularities shall receive special attention to ensure that they receive an adequate thickness of paint. Spray equipment shall be equipped with traps and separators and where appropriate, mechanical agitators, pressure gages, pressure regulators, and screens or filters. Air caps, nozzles, and needles shall be as recommended by the spray equipment manufacturer for the material being applied.

4.3 CLEANING AND PREPARATION OF SURFACES TO BE PAINTED

4.3.1 **GENERAL:** Surfaces to be painted shall be clean before applying paint or surface treatments. Deposits of grease or oil shall be removed in accordance with SSPC-SP 1, "Solvent Cleaning" prior to mechanical cleaning. Solvent cleaning shall be accomplished with mineral spirits or other low-toxicity solvents having a flash point above 100EF. Clean cloths and clean fluids shall be used to avoid leaving a thin film of greasy residue on the surfaces being cleaned. Items not to be prepared or coated shall be protected from damage by the surface preparation methods. Machinery shall be protected against entry of blast abrasive and dust into working parts. Cleaning and painting shall be so programmed that dust or other contaminants from the cleaning process do not fall on wet, newly painted surfaces, and surfaces not intended to be painted shall be suitably protected from the effects of cleaning and painting operations. Welding of, or in the vicinity of, previously painted surfaces shall be conducted in a manner to prevent weld spatter from striking the paint and to otherwise reduce coating damage to a minimum; paint damaged by welding operations shall be restored

- ACCOMPANYING AMENDMENT 0002 TO SOLICITATION NO. DACW63-00-B-0004 to original condition. Surfaces to be painted that are inaccessible as constructed or installed shall be disassembled, cleaned, repainted and reinstalled.
 - 4.3.2 FERROUS SURFACES: Ferrous surfaces which are to be painted shall be dry blast-cleaned in accordance with the requirements of SSPC-SP 10. The blast profile shall be as recommended by the coating manufacture and shall be measured by ASTM D 4417, Method C. Appropriate abrasive blast media shall be used to produce the desired surface profile and to give an angular anchor tooth pattern. If recycled blast media is used, an appropriate particle size distribution shall be maintained so that the specified profile is consistently obtained. Steel shot or other abrasives that do not produce an angular profile shall not be used. After final blast cleaning of ferrous surfaces designated to be painted, the surfaces shall be cleaned of dust and residues (principally by brushing, vacuum cleaning or blowing off with clean, dry, compressed air or by a combination of these methods). Within eight hours after final blast cleaning, prior to the deposition of any detectable moisture, contaminants, or corrosion, application of the first coat of paint shall be completed. At the time of application of the first coat of paint, the surfaces shall meet all specified requirements for surface preparation.
 - 4.4 PROGRESS OF PAINTING WORK: Where field painting on any type of surface has commenced, the complete painting operation, including priming and finishing coats, on that portion of the work, shall be completed as soon as practicable, without prolonged delays. Sufficient time shall elapse between successive coats to permit them to dry properly for recoating, and this period shall be modified as necessary to suit adverse weather conditions. Paint shall be considered dry for recoating when it feels firm, does not deform or feel sticky under moderate pressure of the finger, and the application of another coat of paint does not cause film irregularities such as lifting or loss of adhesion of the undercoat. All coats of all painted surfaces shall be unscarred and completely integral at the time of application of succeeding coats. At the time of application of each successive coat, undercoats shall be cleaned of dust, grease, over spray, or foreign matter by means of air blast, solvent cleaning, or other suitable means. Cement and mortar deposits on painted steel surfaces, not satisfactorily removed by ordinary cleaning methods, shall be brush-off blast cleaned and completely repainted as required. Undercoats of high gloss shall, if necessary for establishment of good adhesion, be scuff sanded, solvent wiped or otherwise treated prior to application of a succeeding coat. Field coats on metal shall be applied after erection except as otherwise specified and except for surfaces to be painted that will become inaccessible after erection.
 - 4.5 **PROTECTION OF PAINTED SURFACES:** Where shelter and/or heat are provided for painted surfaces during inclement weather, such protective measures shall be maintained until the paint film has dried and discontinuance of the measures is authorized. Items that have been painted shall not be handled, worked on, or otherwise disturbed until the paint coat is fully dry and hard. All metalwork coated in the shop or field prior to final erection shall be stored out of contact with the ground in such manner and location

- ACCOMPANYING AMENDMENT 0002 TO SOLICITATION NO. DACW63-00-B-0004 as will minimize the formation of water-holding pockets, soiling, contamination, and deterioration of the paint film, and damaged areas of paint on such metalwork shall be cleaned and touched-up without delay. The specified first overall field coat of paint shall be applied within a reasonable period after the shop coat and in any event before weathering of the shop coat becomes extensive.
 - 4.6 **PROTECTION OF NON-PAINTED ITEMS AND CLEANUP:** Walls, equipment, fixtures and all other items in the vicinity of the surfaces being painted shall be maintained free of damage by paint or painting activities. Prompt cleanup of any paint spillage and prompt repair of any painting activity damage shall be required.

5. SAFETY PROVISIONS

5.1 ABRASIVE BLASTING:

- 5.1.1 <u>Hoses and Nozzles</u>: Hoses and hose connections of a type to prevent shock from static electricity shall be used. Hose lengths shall be joined together by approved couplings of a material and type designed to prevent erosion and weakening of the couplings. The couplings and nozzle attachments shall fit on the outside of the hose and shall be designed to prevent accidental disengagement. A deadman type control device shall be provided at the nozzle end of the blasting hose to cut off flow in the event the blaster loses control of the hose.
- 5.1.2 <u>Blasting Helmets</u>: Blasting operators shall be protected by MSHA/NIOSH approved air-line fed abrasive blasting helmets of a continuous flow, positive pressure type. Breathing air, source of supply and other respirator criteria shall conform to the requirements EM 385-1-1, Section 05.E.
- 5.1.3 <u>Protective Clothing</u>: Blasting operators shall be protected against injury from impact of blast abrasive by wearing appropriate protective equipment, including heavy canvas or leather gloves and aprons or equivalent protection. Safety shoes or boots shall be worn. Hearing protectors shall be worn during all blasting operations.
- 5.1.4 <u>Workers Other Than Blasters</u>: Workers other than blasting operators working in close proximity to abrasive blasting operations, shall be protected by utilizing MSHA/NIOSH approved half face or full face air purifying respirators equipped with High Efficiency Particulate Air (HEPA) filters, eye protection meeting or exceeding ANSI Standard Z87.1 (latest revision) and hearing protectors (ear plugs and/or ear muffs). Representative air sampling, in the breathing zone of the worker, shall be obtained prior to permanent issuance of any respiratory protection to assure that the protection factor of the respirator is not exceeded. Air sampling will not be required when non-silica containing abrasive blasting material (1% free silica content or less) is used and it has been established the surface coating to be removed will not generate toxic airborne particulates (for example lead or chromates).

ACCOMPANYING AMENDMENT 0002 TO SOLICITATION NO. DACW63-00-B-0004 5.2 CLEANING WITH COMPRESSED AIR: As required in EM 385-1-1, cleaning with compressed air is prohibited, except where the pressure has been reduced to less that 30 psi (pounds per square inch) or the air hose is equipped with a pressure reducing valve. Persons using high pressure compressed air for blow down after abrasive blasting operations shall be protected by the same equipment required for abrasive blasting in 5.1 above.

5.3 CLEANING WITH SOLVENTS:

- 5.3.1 Ventilation and Respiratory Protection: Ventilation shall be provided in confined or enclosed spaces where solvents are used for cleaning to remove solvent vapors at the source and to dilute their concentration to no greater than 10% of the Lower Explosive Limit (L.E.L.). Exhaust ducts shall discharge clear of the working areas and possible sources of ignition. Persons conducting solvent cleaning in confined or enclosed spaces shall wear a MSHA/NIOSH approved Self Contained Breathing Apparatus (SCBA) with a full face piece operated in a pressure demand or other positive pressure mode or Supplied Air Respirators (SAR) (airline type) with full facepiece operated in pressure demand or other positive pressure mode in combination with an auxiliary SCBA (emergency escape bottle), operated in pressure demand or other positive pressure mode. Auxiliary SCBA must be of sufficient duration to permit escape to safety if the air supply is interrupted. Representative air monitoring in accordance with the Contractor's air-monitoring plan shall be conducted to determine hazardous atmospheres. Contractor confined space procedures shall be implemented prior to confined or enclosed space solvent cleaning operations. Where cleaning activities using solvents are being carried out in areas that the Contractor's on-site safety and health representative has determined are NOT confined or enclosed spaces, persons conducting such cleaning shall wear as a minimum, MSHA/NIOSH approved chemical cartridge/canister half or full face piece air-purifying/respirators that has sorbent suitable for the chemical properties of the anticipated gas/vapor contaminant(s) and for the anticipated exposure levels. Whenever high airborne concentration of particulates are anticipated or encountered during cleaning with solvents, approved air-purifying chemical cartridge/canister respirators that have a particulate prefilter suitable for the specific type(s) of gas/vapor and particulate contaminant(s) and for the exposure concentration shall be worn. Air monitoring shall be conducted in the breathing zone of the worker to determine specific solvent vapor concentrations prior to the permanent issuance of respiratory equipment to assure that the Assigned Protection Factor (APF) of the respirator is not exceeded. APF is defined as the anticipated workplace level of respiratory protection provided by a properly functioning respirator or class or respirators to a percentage of properly fitted and trained users. The maximum specified use concentration for a respirator shall be determined by multiplying the permissible exposure limit for the contaminant by the protection factor assigned to a class of respirators. (Refer to the NIOSH document, Respirator Decision Logic/ for guidance).
- 5.3.2 <u>Protective Clothing</u>: Exposure of skin and eyes to solvents shall be avoided by utilization of appropriate chemical resistant gloves, apron, clothing (if applicable), safety goggles and face shield. Guidance

ACCOMPANYING AMENDMENT 0002 TO SOLICITATION NO. DACW63-00-B-0004 regarding selection of appropriate clothing may be obtained by consulting the American Conference of Governmental Industrial Hygienists (ACGIH) publication "Guidance to the Selection of Chemical Protective Clothing", VOLS I & II, 1987. Copies may be obtained by contacting ACGIH in Cincinnati, Ohio (513) 661-7881.

5.4.1 Fire and Explosion Prevention:

5.4.1.1 Ventilation: A ventilation assessment shall be conducted for enclosed and confined spaces prior to initiating activities to ensure that an adequate amount of makeup air will be provided. All areas of these spaces shall be swept by moving air. The effectiveness of the ventilation shall be checked by using ventilation smoke lubes and making frequent oxygen and combustible gas readings during painting operations. When using solvent based paints in enclosed and confined spaces, ventilation shall be provided to exchange air in the space at a rate of 5000 cubic feet per minute per spray qun in operation. Except for a zone within 5 feet in any direction from an operating spray nozzle, the concentration of volatile material at any location in the confined or enclosed space shall not exceed 20% of the L.E.L. This may be accomplished by increasing the volume of air exhausted and by carefully selecting the exhaust and supply fan locations. Requirements for electrical equipment are found in paragraph 5.4.1.3. It may be necessary to install both a mechanical supply and exhaust ventilation system to effect adequate air changes within the confined space. All air moving devices shall be located and affixed to an opening of the confined space in a manner that assures that the airflow is not restricted or short circuited and is supplied in the proper direction. Means of egress shall not be blocked. Ventilation shall be continued after completion of painting and through the drying phase of the operation. If the ventilation system fails or the concentration of volatiles exceeds 20% of the L.E.L. (except in the zone immediately adjacent to the spray nozzle) painting shall be stopped and spaces evacuated until such time that adequate ventilation is provided. An audible alarm which signals system failure shall be an integral part of the ventilation system. Exhaust ducts shall discharge clear of the working areas and away from possible sources of ignition.

5.4.1.2 Atmospheric Testing: The Contractor shall implement an Airborne Sampling Plan. Representative air samples shall be collected to determine if toxic contaminants are being generated in concentrations that may be harmful to workers. The Contractor shall utilize NIOSH approved sampling and analytical methods as described in the NIOSH Manual of Analytical Methods (latest revision). A copy may be obtained by contacting NIOSH Publication in Cincinnati, Ohio at (513) 533-8287. Laboratories utilized to analyze samples shall be AIHA accredited and shall have demonstrated proficiency in the analysis to be performed as evidenced by successful passing participation in the joint NIOSH/AIHA Analytical Testing Proficiency Program (PAT). A listing of AIHA approved laboratories and PAT participants may be obtained by calling AIHA in Akron, Ohio (216) 873-2443. Confined spaces shall be tested prior to and continuously during painting operations, to determine the effectiveness of the ventilation system. Intrinsically safe oxygen, combustible gas and other monitoring instruments to be used in confined spaces, certified by FM and/or Underwriters Laboratories for use in

- ACCOMPANYING AMENDMENT 0002 TO SOLICITATION NO. DACW63-00-B-0004 Class 1, Division 1, Group A, B, C and D hazardous areas, shall be used to determine if adequate levels of oxygen and safe concentrations of combustibles or toxic contaminants exist. A minimum level of 19.5% oxygen and a maximum concentration of 20% of the Lower Explosive Limit for combustible materials are mandatory requirements for safe work in these spaces, except for the zone within 5 feet in any direction from an operating spray nozzle. Periodic testing, shall also be conducted in confined space areas adjacent to the area where spray painting is occurring and in areas where the air is being exhausted from the confined space to ensure safe concentrations of oxygen, combustibles and toxic contaminants are maintained. All air monitoring equipment shall be calibrated prior to each use and rechecked after each use. The oxygen and combustible gas meter(s) shall be equipped with an audible alarm which signals unsafe levels of oxygen and/or combustibles gases.
 - 5.4.1.3 Explosion Proof Equipment: All electrical wiring, lights, and other equipment located in the paint spraying area shall be of the explosion proof type designed for operation in Class I, Division 1, Group D, Hazardous Locations as required by the National Electrical Code. Electrical wiring, motors and other equipment outside of, but within 20 feet of any spraying area, shall not spark and shall conform to the provisions for Class I, Division 2, Group 2, Hazardous Locations. Electric motors used to drive exhaust fans shall not be placed inside spraying areas or ducts. Fan blades and portable airducts shall be constructed of nonferrous materials. All motors and associated control equipment shall be properly maintained and grounded. The metallic parts of air moving devices, spray guns, connecting tubing and all duct work shall be electrically bonded and the bonded assembly shall be grounded.
 - 5.4.1.4 Further Precautions: Workers shall wear non sparking safety shoes. All solvent drums taken into the spraying area shall be placed on nonferrous surfaces and shall be grounded. Metallic bonding shall be maintained between containers and drums when materials are being transferred. Insulation on all power and lighting cables shall be inspected to ensure that the insulation is in excellent working condition and is free of all cracks and worn spots. Cables should be further inspected to ensure that no connections are within fifty (50) feet of the operation, that lines are not overloaded, and that they are suspended with sufficient slack to prevent undue stress or chafing.
 - 5.4.1.5 <u>Ignition Sources</u>: Ignition sources, to include lighted cigarettes, cigars, pipes, matches or cigarette lighters, shall be prohibited in areas of solvent cleaning, paint storage, paint mixing of paint application.

5.4.2 Health Protection:

5.4.2.1 Respirators: Contractor shall implement a Respiratory Protection Program. During all spray painting operations, spray painters shall use approved SCBA or SAR (airline) respirators, unless valid air sampling has demonstrated contaminant levels to be consistently within concentrations that are compatible with air purifying respirator protection factors. All respiratory equipment shall be selected and used in accordance with EM

ACCOMPANYING AMENDMENT 0002 TO SOLICITATION NO. DACW63-00-B-0004 385-1-1, 05.E and 29 CFR 1910.134 and consistent with the quidance contained in the NIOSH document, Respirator Decision Logic. During all confined space spray painting operations, only MSHA/NIOSH approved SCBA with half face or full face piece operated in pressure demand or other positive pressure mode or a SAR (airline) with a half or full face piece or painters helmet, hood or suit operated in pressure demand or other positive pressure mode in combination with an auxiliary SCBA (emergency escape bottle) operated in pressure demand, or other positive pressure mode shall be used. Auxiliary SCBA must be of such duration to permit escape to safety if air supply is interrupted. All employees who wear air-purifying type respirators shall be quantitatively or qualitatively fit-tested, using NIOSH approved procedures, for the specific type air-purifying respirators they will wear. with facial hair that interferes with the sealing surface of the face piece to face seal or interferes with respirator valve function shall not be allowed to perform work requiring respirator protection. Air purifying chemical cartridge/canister half or full face piece respirators that have a particulate prefilter and are suitable for the specific type(s) of qas/vapor and particulate contaminant(s) may be used for non-confined space painting, mixing, and cleaning (using solvents), provided the measured or anticipated concentration of the contaminant(s) in the breathing zone of the exposed worker, does not exceed the Assigned Protection Factor (APF) for the respirator, and the gas/vapor has good warning properties or the respirator assembly is equipped with a NIOSH approved End of Service Life Indicator for the gas(es)/vapor anticipated or encountered. Where paint contains toxic elements such as lead, cadmium, chromium or other toxic particulates that may become airborne during painting in non-confined spaces, air purifying half face and full face piece respirators or powered air purifying respirators, equipped with appropriate gas vapor cartridges in combination with a high efficiency filter or an appropriate canister incorporating a high efficiency filter shall be used. Stand-by personnel used for all confined space operations shall be equipped with SCBA with a minimum breathing air supply of 30 minutes. Individuals selected to act as stand-by personnel shall be medically evaluated to ensure that they are physically and psychologically able to perform rescue duties while wearing a SCBA. In addition, they shall be thoroughly trained in confined space monitoring techniques, communications to be used, and emergency rescue techniques. Communications (i.e. visual, voice, signal line, radio or other means) shall be maintained between workers inside confined space and stand-by personnel outside at all times.

5.4.2.2 Protective Clothing and Equipment: All workers shall wear safety shoes or boots, appropriate gloves to protect against the chemical to be encountered and breathable protective full body covering during spray painting applications. Where necessary for emergencies, protective equipment such as life lines, body harnesses or other means of personnel removal shall be utilized during confined space work.

5.5 MEDICAL STATUS:

5.5.1 <u>Medical Evaluation</u>: Prior to the start of work and annually thereafter, all Contractor employees working with or around paint systems thinners, blast media, those required to wear respiratory protective

- ACCOMPANYING AMENDMENT 0002 TO SOLICITATION NO. DACW63-00-B-0004 equipment, and those who will be exposed to high noise levels, shall be medically evaluated for the particular type of exposure they may encounter. The evaluation shall include:
 - (1) Audiometric testing and evaluation of employees who will work in the noise environments.
 - (2) Vision screening (employees who use full face piece respirators shall not wear contact lenses).
 - (3) Medical evaluation shall include but shall not be limited to the following:
 - (a) Medical history, including but not limited to alcohol use, with emphasis on liver, kidney and pulmonary systems, and sensitivity to chemicals to be used on the job.
 - (b) General physical examination with emphasis on liver, kidney and pulmonary system.
 - (c) Determination of the employee's physical and psychological ability to wear respiratory protective equipment and perform job related tasks.
 - (d) Determination of baseline values of biological indices for later comparison to changes associated with exposure to paint systems and thinners or blast media which include:
 - (1) liver function tests to include SGOT, SGPT, GGPT, alkaline phosphatase, bilirubin.
 - (2) complete urinalysis
 - (3) EKG (employees over age forty)
 - (4) blood urea nitrogen (bun)
 - (5) serum creatinine
 - (6) pulmonary function test, FVC and FEV
 - (7) chest x-ray (if medically indicated)
 - (8) blood lead (for individuals where it is known there will be an exposure to materials containing lead)
 - (9) other criteria that may be deemed necessary by the Contractor's physician.
 - (10) physician's statements for individual employees that medical status would permit specific task performance.

- ACCOMPANYING AMENDMENT 0002 TO SOLICITATION NO. DACW63-00-B-0004 5.5.2 Change In Medical Status: Any employee whose medical status has changed negatively due to work related chemical and/or physical agent exposure while working with or around paint systems and thinners, blast media, or other chemicals shall be evaluated by a physician and the Contractor shall obtain a physicians statement as described in 7.5.1 (10) above prior to allowing the employee to return to those work tasks. The Contractor shall notify the Contracting Officer in writing of any negative changes in employee medical status and the results of the physician's reevaluation statement.
- 6. **PAYMENT:** Payment for all painting work performed and for all materials furnished under the section of the specifications will be included in the contract prices for the items on which the work is performed.

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